

Redundancy deal is 'for local use only'

by David Jobbins

The comprehensive new redundancy agreement due to be negotiated for college lecturers is not designed to cope with massive sackings envisaged by Government, union leaders are to make clear when full scale talks begin.

They will emphasize that their new claim has been drawn up to deal in a more systematic way with the current rash of isolated job losses hit by locally imposed cuts in college and polytechnic budgets.

Despite the growing indications of wholesale redundancies, with civil servants warning that 3,000 jobs must go by January to keep the cuts on target, the unions are to press on with their own proposals to replace the patchy arrangements currently governing notification procedures and compensation.

"I see no reason for stopping the very solid and good work which has already been done by the Burnham further education committee teachers' panel," said Mr Peter Dawson, general secretary of the National Association of Teachers in Further and Higher Education.

"But if there were to be confirmation of any wider plans centrally inspired by Government, this would produce a new situation and additional things would need to be done," he said.

The commitment to negotiate new arrangements emerged when unions and the local authorities found a way to end the impasse which had developed over the agreement on recommended procedures for redundancies reached with the Council for Local Education Authorities in 1975.

While the two sides argued about the status of these agreements, many authorities blatantly failed to observe

their recommendations, principally that there should be consultations and one year's notice of redundancy. Many hundreds of lecturers were leaving the service under locally administered premature retirement schemes.

When the local authorities eventually agreed that the CLEA agreements should be binding in the areas where it had been ratified, a truly national scheme became the unions' main objective.

Their claim, which will be submitted soon, builds on the CLEA agreements, and will fall into two distinct parts.

The first, dealing with procedures, is designed to avoid redundancies wherever possible by securing early notification and consultations with the unions. Where jobs have to go, PRC and other voluntary methods would be used first, and in the last resort those facing compulsory redundancy would be entitled to a year's secondment on full pay for retraining.

The second part of the claim deals with compensation, and seeks far more generous terms than are available now, with a minimum of 13 weeks' pay for all over 41 including those not eligible for PRC.

Natthe, paradoxically, is also not eager to agree a scheme which offers too attractive an incentive to lecturers to desert the system in an undisciplined way.

Natthe continues to place the highest priority on fighting redundancy threats, Mr Dawson said. The reported levels of job losses envisaged by Government presented a major crisis for further and higher education. "It is a matter we would oppose by all means, and it would further illustrate the priority we need to give to maintaining the system and dealing with the problems of our members."

V-Cs suggest medical freeze

by Robin McKie
Science Correspondent

Medical school admissions should be frozen at their present levels, the Committee of Vice Chancellors and Principals has suggested to the House of Commons Select Committee on medical education.

The proposal to keep admissions at their present level of 3,850 a year instead of allowing them to rise to the planned level of 4,080 would release money for other areas of university expenditure, said Lord Hunter, vice-chancellor of Birmingham University and chairman of the medical advisory committee of the CVCP.

Cambridge does its sums

Cambridge graduates, although still in very high demand among employers, get their first chance to improve their "employability" later this month by taking a voluntary course in numeracy.

According to a university appointments board report released this week 102 graduates - 4 per cent of those in its survey - were still looking for jobs six months after leaving Cambridge in June 1980.

Last summer employers made a fundamental change in their employment policies, when they decided to recruit only to meet short term needs, the report says. The turn to industry which was noticeable among students in recent years is already slowing with entry into manufacturing and industry down in 1980.

The board is responding by introducing more courses which emphasize "employability" skills such as "confidence and competence with figures", the ability to work in groups, and to express oneself orally and on paper.

The Introduction to Management courses run twice a year with 80 places are very popular at Cambridge. A typing course was introduced at Christ-

mas, and short numeracy courses aimed at arts students and run by university dons start after Easter for the first time.

The key areas of high recruitment now appear to be law, chartered accountancy, commerce, and vocational study courses. Solicitor training has the largest increase, with those going to the bar up from 23 in 1979 to 56 in 1980.

Entry into education, study for further degrees, and public service, traditionally strong recruiting areas, are all down. The total going into public service in 1980 was 61, with seven going into the diplomatic corps, and just 17 in the home civil service.

Evidence of student concern about jobs is shown by increases in the number of interviews with careers advisers, the number of former graduates registering with the board, and the large quantities of application forms taken out.

Annual report of the University of Cambridge Appointments board for 1980, by the Cambridge University Careers Service.

Graduates to aid hardship fund

by Ngaio Crequer

Vice chancellors at the universities of Sheffield and Aston have written to their former graduates to ask for funds and other support to help them through the financial crisis.

The Sheffield appeal, which is supported by the student union is aimed at setting up a new and increased hardship fund for students without the means to complete their courses.

It says: "In the present financial situation the university, because of its own financial problems - we face a cutback in recurrent grant of some £1m - cannot provide sufficient funds to deal with the hardship problem."

Some medical students have found that during their course situations have arisen which could not be predicted which have threatened their stay on their course. Overseas students are

also in peril because of changed circumstances, beyond their control, at home or abroad.

The intention is to set up a trust fund to make loans, or exceptionally grants, to students in need, and if enough money is raised a capital fund would provide an annual income.

At Aston, Professor Frederick Crawford, the vice chancellor has written to graduates to suggest setting up a "Volunteers for Aston" to "help me to make the university's contribution to society more widely known, and to aid me in raising support for it." Last week he asked the national body representing all graduate associations, the Conference of University Convocations, to consider its role as a fundraiser.

In his letter, Professor Crawford said: "If recently announced Government policy is implemented in its full

severity...the university faces pressures which will do more than affect progress; they will do catastrophic long term harm, whatever the quality of long term planning."

After referring to the proposed Government cuts, he writes: "In obvious way in which our help dominated as it is by the wages component, could be slashed to accommodate these reductions would be by turning upwards of 100 academic staff in their support from our present complement of about 520."

"Even if the resulting early retirement and compulsory redundancy payments would not far exceed the savings made, as they assuredly would, I ask you to reflect on the damage done to the university, the educational provision for your children and to Britain. We need more education to solve our problems, not less."

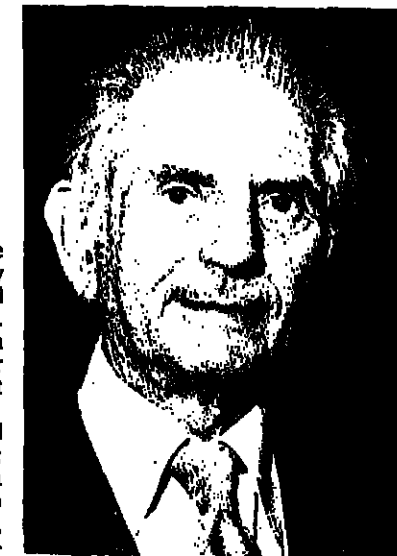
Engineering body hopes fade

Sir Monty Finniston has lost all hope that an effective engineering authority can be set up to improve the status and performance of the profession. Addressing a meeting of the British Institute of Management in London Sir Monty was bitter and pessimistic about the future of British industry.

He was scathing about the proposed chartered engineering body. He said: "It will be, if at all, just that - a body, a carcass. It will have no power, no authority and no prestige overseas, where nobody knows the Privy Council. Anyway we have chartered bodies coming out of our ears."

Sir Monty had harsh words for all. He blamed the engineering institutions for the neglect of the technician classes. He blamed the politicians - "I hate them all; all parties are the same, only some are worse" - for the continuing decline of British industry and gave as an example the six months it took Sir Keith Joseph to decide on a £25m investment in microchips.

In stark contrast to the French eight-element industrial programme complete with government aid and grants, he accused the British government of having no industrial policy whatsoever. In fields which are guaranteed growth and importance - robotics,



Sir Monty Finniston: lost hope.

optical fibres, genetic engineering - there was no investment programme. He divided the blame for the loss of jobs between politicians and civil servants about whom he was particularly bitter, making frequent references to the television programme *Yes Minister*.

The mandarins, he said, with mainly classical educations, were actually undermining not only science but the scientific civil service. He mentioned a recent pay settlement in which pay for administrative grades was raised above that for equivalent scientific grades.

He said the single most serious obstacle to our industrial development was the trade unions.

Low fees for poor proposed

An enlarged fee support scheme for privately sponsored overseas students, more exemptions for students from poorer countries and no restrictions on access to a free health service are among recommendations to be considered by the Commonwealth student mobility group meeting in London next week.

These are the written representations made by the United Kingdom Council for Overseas Student Affairs to the consultative group on student mobility within the Commonwealth, which is meeting to devise methods of helping students from the poorer nations.

The group will also be discussing detailed recommendations arising out of an Association of Commonwealth Universities meeting in Hong Kong, which called for the establishment of a multi-lateral fund for cultural cooperation between Commonwealth countries, not limited to developing countries, to back up the fund for technical cooperation.

The UKCOSA submission argues that "the removal of the 'indiscriminate' subsidy" for overseas students...has "brought into stark relief the difference between the funded student sponsored under the aid programme and the fully charged private student" and proposes ways of redressing the balance.

To safeguard the position of privately sponsored students facing hardship midway through their courses, and to ensure a continued flow of such students, "we believe the British Government should consider extending and enlarging the existing fee support scheme, administered by the British Council for the Overseas Development Administration."

It should be open to students at universities, polytechnics and colleges and could contain developmental and hardship criteria. "A programme of several thousand awards covering half the full cost" fees of students from countries to which Britain takes aid money available would be a practical demonstration of concern for the continued flow of such students without the huge outlay required to fund fully the same number of students."

The council also proposes that an exemption from full cost system could be arranged for a number of students nominated by governments and High Commissions from countries without their own adequate educational facilities.

Finally the recent Government decision to deny free health treatment to overseas students should be removed by agreements between Commonwealth governments.

Single exam predicted for 18-plus

The next generation of students will only take one exam at 18-plus, the Majesty's Inspectorate has told the House of Commons Select Committee on Education, Science and the Arts in evidence on the secondary school curriculum and examinations.

Miss Sheila Browne, senior chief inspector, said such a change in the examination system would not happen within this generation but when it did the exam would include a profile as well as tested written work and basically be designed to assess the whole of person's education.

"Before this is possible you would have to reconcile pre 16 education and make sure that certain guarantees existed within the curriculum," she said.

Miss Peggy Marshall, chief inspector for secondary schools, said that in the short term the exam system would wither away at 16-plus to be replaced by profiles.

"But in the long term there is the possibility of an exam with a recognizable shape but less specific than at the moment, where only one aspect of the curriculum is tested because what aspects will have been assessed in different ways such as through profiles."

Mr B.C. Arthur, staff inspector for special responsibility for schools, said there was nothing revolutionary about profiles but the current examination system was a pretty crude method of measuring what youngsters achieved in school, saw profiles as complementary to exams not replacing them.

Miss Browne refused to brook confidentiality when asked to give names of local education authorities surveyed for the HMI report on the effect of Government expenditure cuts.

In view of the committee's report future inquiries might not carry confidentiality. Local authorities would be warned of the existence and nature of this committee's interest and the fact that she would be questioned.

NEXT WEEK

DJ Palmer on Shakespeare
How the UGC will divide up the cuts

Five pages of new psychology books
Graduate recruitment by computer
The national body's summing up
Educating tomorrow's accountants

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Miss Caroline Herschel confronts an ancestor. She unveiled a bronze bust of her great great grandfather, Sir William Herschel, the astronomer who discovered Uranus. The bust, by Judith Craig, is at the London Planetarium.

Carlisle takes more time to reply to committee

by Paul Flather

The Government has decided there will be no immediate second stage reply to the House of Commons Select Committee report on higher education published six months ago.

Mr Christopher Price, MP, chairman of the committee, warned the Government earlier this month of the dangers of interrupting the dialogue between ministers and MPs at a time of real crisis in universities and higher education.

Under Parliamentary procedure the Department of Education and Science should have replied within two months to the Select Committee report, and Mr Price asked if there was some way of preventing ministers from sitting on reports and refusing to reply to them.

Mr Mark Carlisle, the Secretary of State for Education said in a letter sent last week to Mr Price, that he now needs more time to take account of representations being made about plans to set up a new national body to fund and oversee public sector higher education.

The central recommendation from the Select Committee was the setting up of a new committee for colleges and polytechnics, and Mr Carlisle says the DES "would be doing less than justice" to the report if it did not come up with some positive decisions on this.

Mr Carlisle has recently been sent submissions on a new national body by

both the Council for Local Education Authorities and by the Committee of Directors of Polytechnics. Proper considerations of these submissions mean further "prolonged" delays in the promised DES response, he writes.

"It is now clearly important that I pay regard to what CLEA has said, representing as the council does, the major providers of higher education outside universities," says the letter.

Referring to the leaked DES memorandum outlining Government thinking on a national body which prompted CLEA to make its submission, Mr Carlisle makes clear the paper was "simply part of the process of internal policy formulation and not an agreed line of development."

The Select Committee is now faced with the dilemma of deciding whether to ask the Government for a further interim response to its report "to continue the dialogue" or wait at least a few months for a fuller response dealing with its plans on the national body. A decision will be taken at a Select Committee meeting next week.

Mr Price also believes that a major stumbling block facing the Government is to persuade the Treasury to find some way of compensating local authorities who stand to lose about £400m worth of property if the suggested 98 colleges and polytechnics are brought under central government control.

Lucky third of universities to escape cuts axe

by Ngaio Crequer

One in three universities is likely to escape the major surgery being planned by the University Grants Committee in response to the latest Government spending restrictions, according to sources in the UGC.

Under preliminary plans drawn up by the UGC, another third will suffer relatively minor cuts involving some staff redundancies. The rest will be so badly hit that they will have to sack large numbers of staff.

University finance officers have been told by the UGC that they are now unlikely to receive details of their grant allocation until June, which will leave them only a few weeks before term ends to implement decisions.

The main committee of the UGC has decided to hold a series of extra fortnightly meetings, the first of which took place yesterday, to give it time to agree the cuts to be made.

In the initial drawing of the cuts map, which will be revised as the details are filled in, Oxford, Cambridge and Durham are among universities in the first category, which will suffer least of all. London, mainly because of its heavy reliance on overseas students, appears in the final section where there will be substantial redundancies.

The recurrent grant letter will tell universities that their allocation assumes they will abandon complete subjects, which they will name, and that they should not make general cuts over a wider field.

Clerical staff claim 15 per cent

University clerical and computer staff are to claim 15 per cent rises in the final throes of the current pay round.

They are the only university employees except for clinical staff still to settle in a round in which claims of 16 per cent and more have been admitted down close to the 6 per cent Government pay limits.

The claim is based on 12.5 per cent inflation and the Budget's failure to adjust tax thresholds. Unions representing the staff are also seeking structural changes including placing the highest grade on a par with higher executive officers in the Civil Service.

The employers are unlikely to concede more than the settlements reached with academics, technicians and manual staff. Dons originally submitted a 16.5 per cent claim but this was cut back to 13 per cent before coming into direct conflict with the

reasons; the magnitude of the task and the persistent hope that more Government money will be made available. Talks with the Department of Education and Science are continuing.

The announcement on the equipment grant allocation is expected soon after Parliament returns next week and it may be that some of this money will be diverted to recurrent income.

Another problem is that the subject sub-committees, which have been examining tactics and strategies for making changes have responded in different ways. Some have looked at particular departments, especially where staff-student ratios are high, and have proposed closure. Others have produced more general reports without naming specific universities.

Subjects such as pharmacy, pharmacology, catering and hotel management are vulnerable because it is believed that these could very easily be studied outside the university system. Universities with polytechnics nearby which could take students at marginal cost will be expected to transfer courses.

But the problem still causing the most heart-searching at the UGC is how universities are going to be able to sack staff. They now believe that their earlier estimate of redundancy payments costing between £40,000 and £80,000 was much too low. They are also concerned about the prospect of lengthy court actions.

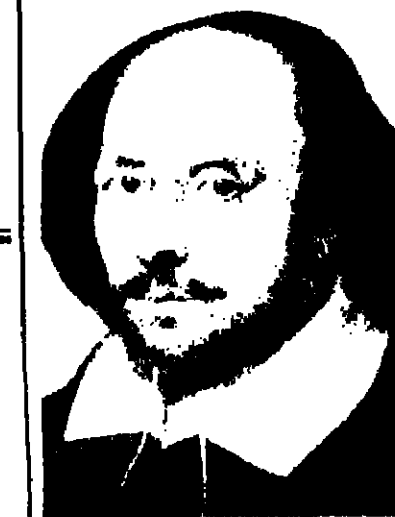
The effect of the current pay round has also been to bring academics, technicians and manual staff in line with an April settlement date. The white collar workers are now the only ones out of phase with their July date.

Both groups have had their 1979 13.5 per cent settlement topped up with comparability awards. While clerical staff received what union leaders regarded as a disappointing 5 per cent, computer operators have recently won a 15 per cent boost.

The unions are hopeful that talks will be speedily handled. "We are hoping this year to move negotiations on pretty quickly," one said.

Mr Beith said that, in view of the answer and of the serious position facing the universities, he would be pressing for a full Commons debate on higher education. As well as putting down a Private Member's motion, he will urge the Labour Party to devote part of its allocation of Commons time to the subject.

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Call for complete change in attitude

Universities must undergo a complete change of attitude if they are to attract more mature students from a wider social background, the director of Birmingham University extra-mural department said last week.

Mr Allen Parker, who is vice chairman of the Universities Council for Adult Education, told the conference that universities must respond and be seen to respond to the needs of the 1980s.

Now entry to university at 18 was no longer the norm, universities must adopt a more flexible role including part-time degrees, modular courses, co-ordination with other institutions and the use of distance learning techniques.

A new system of grant aid for mature students was also essential, he said. Mature students could be given tax incentives or allowed to join an educational insurance scheme which could supplement the normal students grant and bring them nearer the level income they had when in employment.

Extra-mural departments must be the main agents for encouraging more mature students from a wider social background, and additional funds should be made available for this and for continuing education work, he said.

However, part of the problem of the Model E approach was that universities had no idea of what the extra cost would be and what sort of provision was needed. They did not know whether the main demand would be felt by a limited number of universities in large cities or whether some subjects would be more important than others.

Mr Parker urged: "There is a need for detailed studies to be initiated of the implications and cost of further moves by universities into continuing education, otherwise we will be taking decisions on inadequate information. The initiative should come from the university side and the UCAB should play a leading part."

This complete rethinking of approach was an area in which the extra-mural departments had made and would continue to make a particularly important contribution, Mr Parker said.

"Extra-mural work is able to offer opportunities for academics to explore together with intelligent extra-mural students whose main concern are in the world of affairs," he said.

"It is an opportunity for academics to test approaches to subjects against the expressed demands of articulate, practical men and women. It is a necessary part of involvement of the university in the life of society."

The liberal adult education tradition of extra-mural departments could also contribute immeasurably to professional mid-career courses, Mr Parker said. "Refresher courses ought to offer more than updating knowledge but also a refreshment in the style of thinking."

● The Universities Council for Adult Education will be known as the Universities Council for Adult and Continuing Education from August 1, the conference which was held in Liverpool, decided.

Departments must meet market needs

Extra-mural departments must become more market-orientated if they are to survive, the conference was told by the director of Oxford University's department of external studies.

Mr Dick Smethurst warned that the present system where the Department of Education and Science directly funded 75 per cent of the teaching costs of extra-mural departments would not survive the decade.

Alternative funding from the University Grants Committee would not be earmarked and would be insufficient for extra-mural needs.

"Pressure from other parts of the universities and an instinct for self-survival will see extra-mural departments into a modified market model," he predicted.

Mr Smethurst criticised his audience for continuing to look forward optimistically to a time of increased public expenditure. He urged them to accept the straitened circumstances and stop thinking the situation is temporary.

"This has been true over the last few years," he said. "When facing a crisis the Department of Education and Science has coughed up more than expected and the crisis has been shelved. But that is not so now the crisis is here."

A more market-orientated approach should not be difficult for extra-mural departments to adopt, Mr Smethurst insisted. Most of the administrative and financial procedures and some of the marketing skills were already available.

Extra-mural departments could learn to a certain extent from the American experience. The University College of Los Angeles for instance raised a vast income from using an extreme market approach to adult education.

Mr Smethurst recommended that British extra-mural departments re-evaluate the importance of the role of the full-time staff tutor. Deficient marketing skills had resulted in bad,

boring posters and publicity leaflets which could be improved by the appointment of a marketing specialist in each department.

He further urged the DES to take the block grant system further and assess the grant individually for each extra-mural department. The departments could then spend the grant as they chose within a set of broad guidelines.

However, Mr Smethurst cautioned that a more market-orientated system could have its problems.

It would be difficult to assess differential fee levels for courses as there would be problems in bringing more mid-career and continuing education work into the universities in the first place.

Another problem would be preventing extra-mural departments from becoming simply the administrative arm of internal university departments waiting to undertake outside work.

Community worker makes plea for minorities

Adult education departments in the universities must make major changes to consider the needs of minority cultures, Miss Miranda Hyslop, education liaison officer for the London Borough of Lambeth, Community Relations Council said in a paper presented to the conference.

This was because minority cultures were persistently ignored at all levels of adult education, meaning there was no reflection of the racial diversity of our society, she claimed.

"It is particularly serious for black people that their needs are almost exclusively interpreted in terms of their

deficiencies," she said. Learning materials centred on the premise that the problems which black people face in this country stemmed from their failure to comprehend our customs and to communicate their needs in an acceptable fashion.

"It is a complete rejection of multi-culturalism to say that the price of equality is conforming to white norms. It is racist to place the onus of achieving that equality on the black student when a major cause of inequality is the racism of white institutions," she said.

The overall effect of the response to immigrant minorities throughout adult

education has been to confirm in treatment black people receive as wage rate, special and essentially marginal, Miss Hyslop claimed.

University extramural departments should be concerned with developing multi-racial programmes and should examine the structure and content of existing provision to see why it persistently excluded racial minorities.

"If adult education is to benefit from the minority communities it will have to move forward from piecemeal adaptation of and additions to its programmes to considering real changes in the way provision is made," she said.

Ulster lecturers submit new plan

by Ngao Crequer
Lecturers at the New University of Ulster have called for a new mechanism to co-ordinate the work of the three higher education institutions in Northern Ireland.

"They have also urged the Review Group, chaired by Sir Henry Chilver, which is looking at tertiary educational provision in the province, to end doubts about NUU by endorsing the university's plans for the future."

In a second submission to the Chilver review, the Coleraine branch of the Association of University Teachers says: "The only major threat to the well-being of the university lies in the present state of uncertainty and the irresponsible speculation about the Review Group's deliberations."

The paper outlines several proposals for the development of specific subjects or courses and says these might be

undermined if similar developments were pursued elsewhere. So it proposes that the Chilver group recommends a "co-ordinating mechanism" to enable NUU, Queen's University, and the polytechnic "to play constructive and creative roles in meeting the future needs of the Northern Ireland community."

The AUT argues in the paper that the NUU "has fulfilled its essential purposes at a high level of academic achievement, that it has provided a stimulating alternative to the longer established courses at Queen's University, Belfast; and that it has contributed to the economic and cultural welfare of the north-west of the province."

It has pioneered many valuable programmes of study, the paper says, not previously available in the province, such as West European studies

and Irish studies, energy studies, social administration, nursing studies, medical laboratory science and communications studies.

The education centre was one of five members of a privately funded international consortium working on computer based learning systems, and was also known for its work on the role of religion in Northern Ireland.

Through the university's industrial unit local businessmen had been introduced to the value of computers and taught to programme them. The science schools had helped agriculturalists to introduce new forms of work. The NUU was also the regional information centre for the UK microelectronics programme.

The university was also in the forefront of a number of developments involving older students.

Seven per cent grants rise angers students

Students this week accused the Government of inviting confrontation by ignoring their needs and increasing grants for 1981-82 by an average of only 7 per cent.

Mr David Aaronovitch, president of the National Union of Students, said it was clear Dr Rhodes Boyson, under secretary for higher education, thought students were a soft option and was now forcing a confrontation.

The new grant levels, announced last week in a Commons written reply, mean students living in London will receive £1,825 a year (up from £1,695),

and students outside London will receive £1,535 (up from £1,430).

"We presented Dr Boyson with all the evidence for what we think is a moderate claim of 21 per cent in view of inflation and expected hall price rises of 30 per cent and more. But he completely ignored us," Mr Aaronovitch said.

The NUS has already predicted a wave of rent strikes and the closure of a number of halls of residence next year as students move out because they cannot afford the charges and the rising prices.

Last of the big spenders

A history student at Manchester University, who does not drink or smoke and rarely goes out in the evenings, found his grant covered basic expenses during a term but luxuries such as a bible or posters were extras.

Mr Daniel Rich has sent a meticulous record of every item of expenditure during his first term at Manchester to the university authorities in protest against proposed increases in hall charges next year.

Mr Rich, who paid £300.76 for 11 weeks stay in the university's Owens Park Hall, says even the most frugal student will not be able to afford high hall charges increases with a 7 per cent grant increase for 1981-82.

He spent a total of £557.34 and calculated his grant allowance as £560.36. He says he could not find a Christmas job in spite of numerous inquiries in South London where he lives with his parents.

He spent £67.95 on purchases of clothes and other goods, including slippers "bought cheap from Marks and Spencer", and underwear "from the staff discount store".

A total of £52.80 went on books (approved or recommended by departmental tutors). The most expensive book was *Man and Society* by John Plamenatz which cost £6.50; all the others were paperback.

After allowing £30 for bus fares, £26.70 for sundries such as coffee, tea, a tea-pot, polish, and lace, and toiletries, Mr Rich found he was left with £2.35 a week, which he spent on postage, "all entertainment", and "anything else I have forgotten".

He still spent an extra £160.44 on items which he classified as "luxuries" and did not include in his account. These included £12.75 for a bible, £9.60 for a squash racket, £42.00 for other travel, £6.30 for posters for his hall room, and £18.12 for life insurance.

Union officials join Labour Party

A senior official and a leading member of the college lecturers' union have left the Communist Party to join the Labour Party.

Their decision deals a severe blow to the influence of the Communist Party in the affairs of the National Association of Teachers in Further and Higher Education. Oneprong in the Association of Teachers in Technical Institutions, forerunner, it has fluctuated markedly in recent years.

The two are Mr Keith Scribbles, the union's assistant secretary for salaries, and Mr David Triesman, who joined the executive last year.

Mr Scribbles was shortlisted for the job of general secretary in 1979, but was beaten by Mr Peter Dawson, a member of the Labour Party. Triesman, a lecturer at the Polytechnic of the South Bank, is prominent in the union's Inner London region. He was one of the leading student radicals of the late 1960s.

Tory students plan rival NUS

by Paul Flather

Conservative students are preparing a major assault to break up and destroy the National Union of Students over the next year and to set up their own cheaper rival national union.

At its national conference at Sheffield University last week, the Federation of Conservative Students passed a policy which calls for all tacit and active support of NUS to be withdrawn immediately and for members to campaign vigorously against the union.

This means the FCS, currently celebrating its 50th anniversary, will not be represented at future NUS conferences, will not allow FCS members on the NUS executive and will support all disaffiliation campaigns. There are two FCS members at present on the NUS executive.

The federation is also to tell Dr Rhodes Boyson officially at its next fortnightly meeting with the junior education minister that NUS no longer represents the views of moderate or Conservative students.

The policy passed comfortably at a packed conference with more than 500 delegates, confirms a trend begun last year when the so called hardline Thatcherite faction headed by the current FCS chairman, Mr Peter Young, took control of the federation.

Mr Tim Linacre, who wears the same colours as the flamboyant Mr Young, was elected the next chairman of FCS. Mr Linacre who takes over in the summer, beat his more liberal rival, Mr Peter Bayle of Oxford University, by 265 to 233 votes.

The hardliners hold a comfortable majority on the new national committee and with a clear mandate appear keen to launch a new offensive on NUS. Scotland, where five out of eight universities have left NUS, could be the testing ground for an embryonic FCS-run national union.

In the crucial debate on NUS, Mr Paul Lowery, a national committee member from Leeds University, reminded delegates of the slogan: "NUS makes students vomit." "In fact NUS makes student vomit," he said. "NUS has made students irrelevant in the eyes of the Government and the eyes of the public."

Mr Delev Anderson from Newcastle University, said: "We are giving credibility to a left wing organization which takes money from taxpayers. NUS is an abomination." He urged FCS to work to destroy NUS, receiving loud cheers of "more, more."

Mr Brian Monteith, a new vice chairman from Aberdeen University, said in three years Conservatives had failed to win any real reforms in NUS.

An NUS spokesman said the union was disappointed that the federation had decided to opt out of NUS. "Individual Conservatives are bound to continue their ties with the union, and NUS will survive. It is vital more than ever to have a strong union to defend student interests," he said.

● Two FCS students are this week consulting their lawyers after allegations at the conference that they embezzled federation funds.

Mr Lance Moir and Mr David Steyn, both members of the so called NUS Group, an activists discussion group, claim leaked documents of their plans have been seriously misinterpreted.



Straight talking from Dr Rhodes Boyson at the FCS conference.

Too many staff, says Boyson

Universities and polytechnics in Britain have more staff per student than the prestige American universities of Yale and Harvard, Dr Rhodes Boyson, under secretary for higher education, told Conservative students last week.

Dr Boyson said he did not believe there was no room left for further economies, and said polytechnics in particular which were not set up to do research, had an obligation to shed staff and to rationalize courses.

Britain had one of the lowest student staff ratios in the world Dr Boyson said. While the average in Britain was 9.3:1, the average in France was 20:1 and in Italy it was 23:1.

"Our SSRs are half that of Yale and Harvard which are no more undisciplined universities than any of ours. I just do not believe economies cannot be made," he said, referring to special pleas made against cuts made by both universities and polytechnics in recent weeks.

Dr Boyson also said institutions had really to start rationalizing courses. Within a five to 10 mile radius in the

Midlands it was possible to find a number of colleges and universities offering similar courses all with unfilled places. The state had a right to say we want economic numbers on our courses, he said.

"Our Government was elected to cut public expenditure and pass responsibility back to the individual," he said. After two years of Conservative rule there was still room for more cuts, without harming the quality of higher education.

According to the DES, the Government White Paper published in March could result in the shedding of 3,000 lecturer posts by next year. The worst possibility is the loss of one in five jobs (£7,700 by 1984 which would reduce SSRs by 20 per cent.

Dr Boyson also told the Sheffield conference that in spite of raising fees for overseas students, four per cent more overseas students had registered for British courses last year than would have come if Labour had brought in its planned quota system. "And this by an evil right-wing Government," he said, referring to his many critics.

Firms urged to cash in on biotechnology boom

Major proposals to boost university industry links and help firms take advantage of the new science of biotechnology are to be presented at a special conference at Strathclyde University. The conference, to be held on June 24 and 25, will highlight ways in which small firms can combat recession through aid from funding agencies such as the EEC, the National Research Development Corporation and the Scottish Development Agency to help launch new projects, research and development work.

Biotechnology, the application of biological organisms to industry, will be of "key importance to the world economy in the next century," Dr Alfred Spinks said in a report to Government. Although he recommended major public spending on biotechnology, the Government's recent white paper response claimed that "the private sector offered the best

route to building a vigorous efficient industry."

It is to help private industry, particularly small fledgling companies, promote biotechnology that Strathclyde University has decided to hold the June conference. Delegates from industry, universities and funding agencies will attend the conference, which is also partly sponsored by the SDA.

Other areas to be covered will include the principal industrial uses of biotechnology, which can range from growing feedstuffs in sewage to manufacturing new drugs, although the major theme will concentrate on the potential and financing of industrial biotechnology, a university spokesman added. "The desperate financial problems facing small industry in Britain, and particularly Scotland, make it crucial that organised advice on obtaining funds is made available to those who need them."

Council contradicts poly in seeking £2,000 tribunal costs

A polytechnic's "strongest possible" advice that no attempt should be made to recover legal costs from a lecturer who unsuccessfully claimed he had been victimised for his trade union activities has been overruled by Newcastle City Council.

The case against seeking costs from Mr Ray Grace, a member of the executive of the National Association of Teachers in Further and Higher Education, was argued by the director of Newcastle Polytechnic, Professor Loring Barden.

The polytechnic felt that in the interests of reconciliation its claim to legal costs estimated at £2,000 arising from a five-day industrial tribunal hearing should be waived. It informed Mr Grace it did not intend to seek the costs, but the chairman of the city's education committee, Mr Derek Webster, and director of education Mr Jack Chadderton, have now decided to issue instructions for proceedings to start.

The result is that Mr Grace has received contradictory letters from the

polytechnic and the city - one indicating that costs should not be recovered and the other that they would.

Senior polytechnic staff are furious at the decision. While they stand by their resistance to Mr Grace's allegation that he was passed over for promotion because of his union activities, a senior administrator said: "If this is not victimisation I do not know what it is. It is a very petty action."

"Both letters came on the same day," Mr Grace said this week. "This is quite normal for the city and the polytechnic."

He pointed out that the case, against the city council, was brought by Natfhe and not by him. "The tribunal failed to understand this. This makes comments about personal spite quite irrelevant." The tribunal judgement suggested that spite might have motivated Mr Grace's action. Solicitors who acted for the city in the case were said to be surprised at their political masters' decision to press for costs. The claim is based on the tribunal's finding that the case was vexatious.

Health care 'meanies' slammed

The Equal Opportunities Commission for Northern Ireland has criticized further education colleges there for their failure to take any significant steps to promote

in the context of the decision to impose "full cost" fees.

Students sponsors will not necessarily be willing to bear the extra cost of medical treatment, especially at short notice. And those with no sponsors will have to find the extra money themselves, he warned.

The plans are particularly hard on students from under-developed countries. "I have just returned from a meeting of all Commonwealth universities and I think you would have been as shocked as I was to hear the low opinions of present Government policy towards Commonwealth students voiced by our friends."

"The financial gain simply cannot be worth the loss of respect from countries with which we have such very close links," he writes.

Fixing the food-mixer - that's equality Ulster-style

The Equal Opportunities Commission for Northern Ireland has criticized further education colleges there for their failure to take any significant steps to promote sex equality.

A Report of a Formal Investigation into Further Education in Northern Ireland gives examples of sexist references in college prospectuses, such as "a two-year course designed for girls wishing to enter the nursing profession" or a course "designed to prepare boys for entry into the engineering and building trades."

In general, however, the EOC voices only the mildest strictures. It relied heavily on answers by college principals to a brief questionnaire without making any independent assessment of the reliability of the information given, apart from separate questionnaires to unions and women's organizations.

The weakness of this approach was vividly illustrated by Newtownabbey Technical College which wrote to the survey team stating that staff had already taken all necessary steps to promote equality of opportunity between the sexes.

Two two work preparation courses at the college

were later featured in an official Government newspaper, *Ulster Commentary*. It declared that one was mainly for boys and the other for girls. For the boys there were subjects like engineering and construction, with the aim of getting apprenticeships or manual work in a production line industry.

On the other hand, it noted, clerical work and typing are among the "girl-type subjects". A representative of the college commented that the type of work the girls would be going into would be office work, hairdressing, shop assistants or the care field, such as old people's homes.

The EOC report itself is not free of sexist comments. It assumes that responsibility for the home and the family rests mainly with the woman when it suggests a new-style civics course to break down the reluctance of women to enter fields like engineering and technology.

"Learning to keep food-mixers and other domestic appliances in good repair from the safety and maintenance points of view would take the mystery out of electrical work and could encourage a girl to undertake further study of practical engineering subjects," it explains.

The evidence from principals portrayed colleges doing all they could to break down sex stereotyping when beset by so many agencies promoting it. Girls in further education tended not to take engineering because they had not studied relevant subjects at schools; students for link courses were selected by schools and they were usually all the one sex; sex stereotyping was rooted in the primary school and the home, they claimed.

The evidence argued that further education was sandwiched between these pressures and those of employers and society generally when it came to finding jobs. Ten principals said it was their duty not to steer students in particular directions "nor to encourage students to study subjects to fit them for careers where society and employers in particular had prejudices against employing people of one sex or the other."

None of the principals commented: "It would be baffling in our responsibility not to recognize prejudice in employment. We must not get too far ahead of present practice in social engineering." Another stated that care should be taken not to mislead a girl about the chances of employment in a

traditionally male field.

The report makes no strong criticism of this type of vicious circle, in which girls steer clear of the skills for male jobs because they are unlikely to get work and so the job remains dominated by men. It contents itself with the comment that the right of men and women to equality of treatment can and should be brought to the forefront of students' minds whenever the opportunity arises.

Training courses to make careers staff aware of sex discrimination legislation, and efforts to make students aware of the full scope of curricular choice are among the 18 formal recommendations in the document.

The report contains only scant statistical information. It reproduces a table from an out-dated Department of Education publication giving the number of students taking different FE courses in 1977/78, presents previously published figures showing that women FE lecturers earn only 81 per cent of their male counterparts and gives detailed but inconclusive statistics on student grants.

Paul McGill

North American news

Foundation increases budget

from Clive Cookson

WASHINGTON
After eight years of financial retrenchment, the Ford Foundation is to increase its spending next year. Ford, which is still the wealthiest independent foundation in the world, will add at least 15 per cent to the current programme budget of \$102m a year, said its president Franklin Thomas.

Mr Thomas gave the good budgetary news as he announced a new organizational framework and themes for the future work of the Ford Foundation. He has been planning the reorganization since he succeeded McGeorge Bundy as president in June 1979.

The six main themes on which Ford will concentrate over the next few years are: urban poverty and the disadvantaged; rural poverty and resources; human rights and social justice; education; international economic and political issues; and governance and public policy. The foundation has been covering most of these fields over the past few years too, and none represents a dramatic new departure.

However, one area where Ford has done a lot of work in the past - population - is notably absent from the list. "Our feeling is that there are a number of other funders in the field now," said a Foundation spokesman. "We have been in it for 20 years and we can withdraw now without starving population activities," Mr Thomas said. "We expect to concentrate our resources on a limited number of

problems within each theme. Those which we will build our programme while reserving some flexible funds. These reserves will enable us to respond to important opportunities we cannot anticipate and to make explorations of new areas."

Details of the initiatives to be pursued within each theme, and the distribution of funds between them, will not be decided until the next meeting of the foundation's board of trustees in June. At the moment foundation officials refuse to reveal any specific plans, though they indicate that the biggest portion of the budget is likely to go to urban poverty.

Under the theme of education, Mr Thomas promised "continued support for both equity and excellence in higher education and educational systems... strategies that adequately combine attention to these two aspects of work in higher education are being formulated." In addition, the foundation plans to step up its activities in urban secondary schools, including support for demonstration projects in individual schools and school systems.

According to Mr Thomas's internal reorganization, the foundation's three existing divisions (national affairs, education and public policy, and international) will be merged into a single programme division under two new vice presidents. Susan Beresford, who is currently in charge of Ford's women's programmes, becomes vice

president for US programmes, and William Carmichael, now head of the office for the Middle East, will be vice president for developing countries programmes. "The organization of the foundation into a single programme division is designed to facilitate interchange among the entire staff and to link our work in the United States and our work abroad," Mr Thomas said.

Ford will continue to spend 30 to 40 per cent of its resources in developing countries, but will save money by cutting the number of field offices it maintains abroad.

Within the United States the foundation's activities are expected to reflect increasingly its president's belief in small-scale, cooperative community projects. Mr Thomas, a black New York lawyer, was well known in the city for his work as head of the Bedford-Stuyvesant restoration programme, which successfully created neighbourhood self-help schemes.

Another trend will be for Ford to undertake fewer independent projects and get private corporations and other foundations to share costs. More Ford grants will require recipients to obtain matching funding from other sources.

According to Mr Thomas, the foundation's financial position has now stabilized so that grant expenditure can be increased without eroding the capital base any more. But it must be remembered that ten years ago Ford was disbursing \$200m a year - worth about four times today's budget after inflation.

Educators focus on learning

by David E. Sanger
CAMBRIDGE, MASSACHUSETTS

In the early 1970s, when many education schools went into a tailspin few appeared more disoriented than Harvard's graduate school of education. An oversupply of teachers and administrators, and an undersupply of federal support for master's and doctoral students, created little demand for its graduates.

In 1973, recognizing that many of its faculty had abandoned the training of classroom teachers in favour of other pursuits, the school dropped its Master's of Teaching course altogether. Since that time, Harvard has been somewhat of an anomaly among the nation's education schools, dealing with the larger questions of public education policy rather than the nitty-gritty of classroom instruction. That transition, described as "traumatic" by several Harvard professors and administrators, resulted in a loss of prestige for the school among the education community.

In the past two years, however, the school has rebounded, a revival that some educators attribute to its return to the more traditional mission of helping teachers and administrators at the school building level. Others, like Dean Paul Yvisaker, maintain that the education school's emphasis on macro-policy, educational theory and patterns of human development were necessary to provide substantive help to schools in the 1980s.

"In the 1970s, we focused on the process of learning, not the process of schooling," Dean Yvisaker said in a recent interview. "Now we can apply what we have learned to the schools - part of our original mission, but not a move backwards."

Consequently, all divisions of the school have been working on the development of a programme to aid "school leaders" - the principals, teacher groups and parents who set the tone for a school community. "We now know that for a school to work," said Dean Yvisaker, "you have to put together coalitions, be aware of federal programmes, and be aware that kids are getting more television than classroom instruction. Unless we have travelled this wider circle, we would not know what problems the school leader faces."

Dean Yvisaker likens the recent history of the school to the biblical story of the seven fat years and the seven lean years, with the seven lean years beginning when the federal government ceased underwriting the training of educators who returned to school for higher degrees.

Since that time, tuition has increased dramatically and now serves as the school's main source of income. Soon after Mr Yvisaker became dean nine years ago, he also eliminated several programmes and consolidated several small units of the school into three divisions: administration, planning and social policy; human development, reading and counselling; and teaching, curriculum and learning environment.

Today, approximately 1,000 students are pursuing masters and doctoral degrees at the school, about half as many as attended the school 10 years ago.

"The consolidation was a big change, and it took the faculty five years to begin to think collectively," said Stephen Bailey, who directs the administration programme, the largest course offering. "School leadership directions from both academic and policy sources; and by internationally brightened faculties renewed curriculum control of the learning experience of their students."

Writing in one of the reports, former Secretary of State Cyrus Vance summed it all up by saying: "Despite the difficulties posed by almost endless complexities, I cannot think of anything more important to ask of our schools and colleges than to address themselves to that most essential educational goal: to provide young Americans with a more sophisticated understanding of our universal conditions."

Dean Yvisaker stresses that much of the school's attention will continue to be focused on learning in non-school environments on the job, in front of the television set, or in special adult education courses.

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Columbia engineers its future

The Universities Council of British Columbia has approved a plan to have the province's output of professional engineers, by expanding the engineering faculty at the University of British Columbia and opening a new engineering school at the University of Victoria.

All three universities in British Columbia were competing for the right to educate the additional engineers the province needs. The loser is Simon Fraser University, which also put forward a proposal to start a new engineering school.

The universities council, following the advice of a special committee on engineering education, selected the University of Victoria rather than Simon Fraser as the site for the province's second engineering school because of its more favourable location. Simon Fraser University is situated within the Greater Vancouver area, like UBC and therefore establishment of a new school there would not serve a different region of the province. The University of Victoria, on the other hand, serves a separate metropolitan area around the provincial capital on Vancouver Island, the city of Victoria, confusingly, is on the mainland.

The universities council, as a intermediary body like Britain's University Grants Committee, will not set the provincial government for funds to start building the engineering school in Victoria quite yet. The University of Victoria needs more time to plan its programme and facilities and recruit staff (recruitment will not be easy at a time when universities throughout North America are facing severe shortages of engineering faculty). The school will open "when based on demand is clearly perceived," the council says, and that will probably be within five years. Victoria's engineering programme will have a "cooperative" format - alternating periods of academic study and work experience, like a British sandwich course.

However, the expansion of the UBC engineering faculty is to go ahead immediately. Its undergraduate enrolment will rise from the present 1,600 to 2,500 by the mid to late 1980s. University officials say the engineering school will then have reached the "critical size" necessary for it to achieve international repute.

UBC dean of applied sciences Martin Wedepohl said the expansion "will mean a badly-needed updating of facilities and an increase in the strength of our faculty."

Despite the rejection of its proposal to create a full-scale engineering school, Simon Fraser University will continue its present practice of offering undergraduate engineering degrees, after which they may transfer to UBC and the universities council will encourage Simon Fraser to develop a new research-oriented engineering school programme. Should British Columbia ever need a third engineering school, Simon Fraser has "an excellent foundation" on which to build it, the report says.

However, according to the professor in charge of preparing Simon Fraser's engineering plans, Tom Calvert, the council's geographical rationale was "just plain wrong." He said 70 per cent of British Columbia's population growth over the next 25 years would occur in the interior of the province, east of Simon Fraser University and the Vancouver Island to the west. The rejection of his institution's proposal at which was "cautious, cost-effective and geared to the needs of the province."

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Overseas news

Senior staff taken hostage by students

from Jeremy Taylor

SALISBURY

A student protest at the University of Zimbabwe last week set in chain an extraordinary series of events which resulted in the principal and two senior staff being held for more than five hours by members to the student Representative Council and a strike in support of the student action by university workers.

Student unrest is virtually unknown on this placid campus of fewer than 3,000 students. When the hubbub had subsided after the intervention of the ministry of education, university staff seemed somewhat bewildered by the fact that it had happened at all and the attention generated by the affair.

The trouble started in the halls of residence and was caused by student resentment of the director of accommodation and catering. Residential students, the vast majority of whom are black, complained about the director's attitude on race and last week circulated a petition demanding his dismissal, which gathered about 500 signatures.

At the same time, it appears, there had been widespread dissatisfaction among black workers on the campus over wages and working conditions. Matters came to a head on Monday morning when catering staff went on strike in support of the students' demands and workers and students gathered, asking for a meeting with senior staff.

Professor John Lewis, the principal, who is retiring later this year, and Mr Robert Blair, the registrar, went out to meet the protestors. Professor Walter Kamba, the university's first black principal designate, is in Australia.

Addressing about 1,000 students and workers through a loudspeaker, Professor Lewis said he would examine allegations against the catering director with representatives of the workers and the SRC but added that an employee could be dismissed only by the university council.

Students then formed a tight circle around Professor Lewis and Mr Blair, preventing them from leaving. Professor Geoffrey Bond, the vice-principal, who went to speak to the students, was also detained.

Mr Cliffo Mashiri, the president of

Adelaide purges her grey away

from Geoff Maslen

MELBOURNE

The greying of Australian academia is likely to accelerate as universities and colleges enter their fourth steady state year and new job opportunities decline further.

In an effort to unclog academic's arteries, the University of Adelaide has come up with three ideas which are now being seriously considered by other institutions around the country. Adelaide spends about 84 per cent of its recurrent grant on salary and related costs. It says one intention of the schemes is to save money which can be used to make new appointments and these, in turn, "will generate the growth of new ideas and ensure that the academic spirit of the university remains young and vital."

The first of the ideas, already available to academics in the university, enables all full-time academic staff who are 55 years old or over and who have had at least 10 years continuous service to convert to a tenured, part-time appointment. Although subject to departmental requirements, the scheme would enable a full professor with tenured employment to switch to a half of security or even more remarkable - loss or superannuation benefits. It is staggered to reduce its impact on departments.

Oddly enough, in a country where people wait for long service leave or their holidays like a child wishing Christmas would hurry the initial response of Adelaide academics has not been enthusiastic.

Again, the university has promised that the staff member's superannuation benefit will not be affected by extra leave and it hopes as people get used to the notion, they will begin to take it up.

'UGC' proposed for France

from Guy Neave

PARIS

France should have a university finance committee to advise the higher education minister on the lines of the British University Grants Committee.

This is the major recommendation of a recent report which published the recommendations of the commission on university finance set up last September by premier Raymond Barre. The committee, headed by M. Yves Finville, professor at the University of Rennes I, had the task of studying foreign systems of university finance and to make recommendations to the premier.

Its proposals, published on March 26, found unanimous support from committee members but the question still remains as to whether they will be implemented. They will be kept on ice, however, until the elections are over.

Despite the suspended animation of the electoral period, considerable support is gathering in the university world for the implementation of the committee's conclusions. Though the Conference of University Presidents (CNU) is equivalent of the Committee of Vice Chancellors and Principals, has yet to be officially apprised of its contents, a spokesman stated that the president had already approved of its main points.

University autonomy, the report states, cannot be done away with. What is necessary rather, is the means to enable it to take root.

New forms of financial control, it suggests, are one way positively to ensure university autonomy. This, however, requires far more flexibility and sensitivity than has been the case in the past.

Seventy per cent of the budget in French universities is taken up with staff salaries. A further 20 per cent goes on the upkeep of buildings and general

Student grants frozen for four years

from James Hutchinson

BONN

Pursuit of its policy of thrift, the West German Government has pegged its total expenditure on student and other educational grants at the 1980 level for four years. Even while the cabinet was discussing this controversial measure, Hamburg students were demonstrating against it, and a nationwide "Day of Action" has been planned for May 6.

Last year a total of DM 2.4 billion (around £510m) was spent on grants, a record sum reached by a hefty increase in costs. This amount covered not only grants for students, but also for some pupils at grammar schools and for a lot of people in vocational training. It has now been decided that DM 2.4 billion be the annual limit until 1984.

But, by saving money here and there and by stamping out abuses of the system, the government will be able to award at least nominal increases, albeit after a long stretch at present rates. From April 1 next year grants will go up by between 5.5 and 6.5 per cent - the first rise since autumn 1979. This increase covers only about half the rise in living costs during that period.

The yardstick for assessing entitlement to grants will be adjusted at the same time. At present the full grant is allowed if the parents' income does not exceed DM 1270 a month (£270) and will be raised by just over 10 per cent to £298, and by a further 3.6 per cent in the autumn of 1983. Tuition at German universities is free, and the existing full grant for living expenses amounts to DM 620 (£132) monthly.

The federal minister of education, Herr Bloem-Engelhorn, claimed that the best solution to a difficult problem had been found. Those young people who really needed help would be able to count on the continued support of the state. In comparison with other countries, Germany's university grants system, he added, remained exemplary.

Not according to the students. A spokesman of their union said the government's parsimony was making the privilege of going to university more and more hard to bear. Students, he said, were paying for the price of the country's arms build-up.



M. Barre: a report

maintenance and a further 10 cent, the committee calculates, comes from resources raised by individual universities.

The fact that the state directly finances both staff appointments and building costs, the report argues, serves to make autonomy a very paradoxical matter.

The commission has attempted to skirt the vexed and highly charged issue of whether university personnel, including teaching staff, remain civil servants. Civil servant status, whether for dons or dustman, means virtual life time tenure. But unlike their British colleagues, French university staff are paid directly by the state rather than having two intervening layers, the UGC and the individual university.

Among the four key proposals is the suggestion that in future central government should base its financing on a system of potential rather than actual posts in each establishment.

The advantage of such a system is that it will, apparently, allow individual universities greater control over their own budgeting. Another suggestion is that university finance be brought together

giving encouraging results both in terms of breeding for release and breeding to commercial size.

At present, about 30 per cent of this research is supported by clients through contracts or grants. By 1984 this figure should have increased to 50 per cent, representing projects in Kuwait and in the Gulf at large. The rest of the funds come from the state.

Twenty-five per cent of the institute's energy is placed on training in research. Until recently trainees were sent abroad but in-house training has been stepped up. This year there are 200 trainees, 120 of whom are beginners. At the same time, some 34 scientists have been given scholarships to specialize overseas, mainly in the UK and the US.

The institute is making every effort to attract Arab scientists back to the area in a conscious move to counteract the brain drain that has so seriously affected the Arab world. At the same time, there is an active "Kuwaitization" policy for the institute. When the target figure of 1,000 scientists is reached by 1984, it is hoped 50 per cent of these will be Kuwaiti.

"The constraints are many," admits Dr Adnan Shehab Eldin, the director general, a graduate in nuclear engineering from the University of California. "There is limited manpower in the area and many people are attracted to the private sector. The trend at Kuwait University is towards the arts. Only the women are going for science. They represent 50 per cent of our applicants. They are well disciplined and serious, but there is a drawback in that we cannot use them for fieldwork, out at sea or in the desert."

Another problem confronting the institute is space. The present facilities on campus were designed to house 200, but expansion has been rapid and now the area is littered with temporary makeshift accommodation. Ground will be struck on a new campus this year, due for completion in 1984.

Despite the inconveniences, however, things are moving. Research papers are being disseminated and the institute's scientists are active in attending international meetings. Its promise for the future is considerable.

Among the more successful experiments to date is the solar energy programme: heating, cooling, desalination, greenhouse, control and photovoltaic applications. The marine culture and breeding programme has been in operation since 1971 and is

There are some 800 people employed at the institute's central campus outside Kuwait city and at the various research stations around the country, including over 70 research scientists and more than 100 research specialists, mostly Western-trained Arabs.

The institute's five divisions - environmental and earth sciences, engineering, food resources, petroleum, petrochemicals and materials; and techno-economics - are backed by a comprehensive Technical Services department and the National Scientific and Technical Information Centre.

Within the five divisions there are a number of departments: solar energy, building and building materials, laser electronics, agriculture, food technology, mariculture and fisheries, and so on. The emphasis is on applied research and research training. The subjects are diverse, solar energy, marine pollution, microprocessing, the desalination of seawater, food production, dust analysis, all of which tackle essential problems confronting Kuwait's development.

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under one major head instead of the various forms of payment at present used. The notion of a general university grant is particularly important here. Not only will it permit greater flexibility on the use of government money, it will also allow the government to take into account particular efforts of individual universities to improve their contributions to permanent education.

In an effort to increase the proportion of self-supporting revenues for universities, a hike in student fees is also proposed. Fees, fixed at Frs 95 (£9) in 1968 should be increased to Frs 250 (£22) a year and be subject to regular revisions.

In an effort to improve the coordination between the universities and the state, the committee proposes the setting up of a university finance committee whose 11 members, drawn from the conference of university presidents, and from experts on the national council for higher education and research, nominated for four years at a time. Like the UGC, the committee will undertake annual visits to universities and will draw up a report on their development and their current policies.

The Finville report is a radical breakthrough in the thinking of some of the most pressing problems in French university policy. But autonomy in a time of financial cutbacks is not necessarily the magic potion that many seem to think. By giving universities a greater share in the responsibility for their own finance and its internal distribution, the state has in effect also given them a financial equivalent of a hair shirt. If universities make out, all well and good. If they sink, it will not be the fault of the government so much as the erroneous policies of the individual establishment. Either way, whether the Finville report turns out to be an Indian gift, will have to wait until the next president is in office.

giving encouraging results both in terms of breeding for release and breeding to commercial size.

At present, about 30 per cent of this research is supported by clients through contracts or grants. By 1984 this figure should have increased to 50 per cent, representing projects in Kuwait and in the Gulf at large. The rest of the funds come from the state.

Twenty-five per cent of the institute's energy is placed on training in research. Until recently trainees were sent abroad but in-house training has been stepped up. This year there are 200 trainees, 120 of whom are beginners. At the same time, some 34 scientists have been given scholarships to specialize overseas, mainly in the UK and the US.

The

The National Union of Students is selling the last of its commercial empire. Paul Flather looks at its decline and fall

The final bow to the market force

The last links between the National Union of Students and private enterprise could be severed in the next few months. At the union's conference in Blackpool earlier this month the NUS executive was given the authority to sell the last jewel in its once glorious commercial empire, NUS Marketing Ltd, which last year made a profit of £21,284. The executive is examining closely a firm bid from another promotions firm, Kingsland, Lloyd, and Petersen.

There has always been a stigma inside NUS about running commercial enterprises. There has been positive fear and loathing about business since the afternoon of November 19, 1976, when two of the union's companies, NUS Travel and Photomach Ltd, went into liquidation. The loss of the companies was a profound shock after a decade of spiralling expansion. The morale of union officers was deeply scarred, the ability of NUS executives to manage was undermined and the union's reserves disappeared at a stroke. Charles Clarke, then NUS president, escaped the political sack only by his bootlaces.

In its heyday the NUS empire was extremely large. Beginning with the worthy intention to stop spivs, wide boys and other sharp businessmen from exploiting students, the NUS travel and insurance companies grew through the late 1960s and early 1970s as NUS grew. In 1968 NUS had 400,000 members and a turnover of £86,000; by 1976, it had 80,000 members and an annual budget of £500,000. At its zenith NUS Travel had 300,000 customers and a £6.5m of business with 50 branches.

The companies were founded on a small capital base, staff lacked proper training, errors in the highly complex travel trade passed unchecked and the profit was spent by the NUS executive and not ploughed back for a rainy day. In the mid 1970s the storm clouds gathered. There was a recession and keen competition from new charter companies and bucket shop travel agents.

A paper prepared by the NUS executive for the background to the national conference gave two main reasons for the crash: a lack of vitally needed risk capital and the deepening 1970s recession. "One of the tragedies was that we needed to reach the stage of liquidation - we could have and should have foreseen the problem and acted to try and solve it at an earlier stage," the executive says.

It is with this hindsight that the executive is approaching the current sale of NUS Marketing. Soon after the 1976 crash the union was forced to sell its highly successful insurance company, Endsleigh Insurance Ltd, then earning about £100,000 a year, to avoid bankruptcy. NUS was left with a trading deficit of £88,278 at the end of the day and decided to hold on to NUS Marketing to give the union a chance to "trade its way back to solvency".

NUS Marketing has had a chequered last five years. From the start the company managers knew all profit would go to paying off debts and not to expand the business. Then goodwill was low at the end of 1976. To make matters worse NUS Marketing ended its first year with a deficit of another £47,474, before things started to look up.

The company's major business has been the National Student Discount Scheme (NSDS) which offers students



possessing special cards discounts on a range of products. The scheme was given a major boost when the Midland Bank took on 40,000 cards to offer as incentives to new account holders. There are three other company lines:

Great Stuff Merchandise arranges supplies of teeshirts, sweatshirts, scarves, bikinis, rucksacks, calculators, and many other staples of the student union shop, with a turnover of more than £200,000 a year.

National Student Promotions, which includes among its clients British Rail, National Express buses and various student travel associations, procures discounts for students. Finally there is the ill-fated Great Stuff Records, launched fairly successfully 18 months ago, but now running into difficulties caused by a recession in the record business and the bankruptcy of its supplier. Now it appears the company is badly in need of capital to expand on its range of products, to move out of cramped offices in the basement of the London University students union (ULU) in Mallet Street, and to introduce new technology to computerize orders, files and accounts.

Ms Helen Connor, the NUS treasurer, says NUS Marketing needs extra funds so that it can improve the services it gives to the 1.2m NUS members and 750 member student union. We do not want to build a NUS Marketing. But allow us to make the services to you better, allow us to find a purchaser to develop the services without having our hands tied.

The executive decision at this month's national conference, which many delegates felt had been sprung on them, survived attacks from two fronts. From the left bank came an exhortation to sell everything immediately and be damned. "Leave marketing to the slick businessmen and salesmen. They are far better at it," said one delegate. "This is a political union. We do not want to build a capitalist empire. We are diluting our strength by subsidizing NUS services," said another.

Members of the union's own watchdog finance committee erred more on the side of caution, urging conference not to give the NUS executive carte blanche to dispose of a valuable asset. They pointed out the value of the NUS

A shop around for services rendered

Lionel Cohen looks at Amsterdam's first free translation enterprise

Holland's first-ever "translation shop" is celebrating an unexpectedly successful first year with over 80 per cent of the hundred or so translation applications accepted and completed.

Wietse van Agtmaal runs the shop, which was set up experimentally at the end of 1979 as part of Amsterdam University's research-stimulating "science shop".

Ms van Agtmaal describes the translation shop as "a strictly non-commercial service. We make no charges of any kind to our clients, but we insist that all work experience for the language same community service criteria which the science shop lays down for the acceptance of all research enquiries."

"It is a special function of the translation shop to provide translation work experience for the languages students who undertake this work some of whom are also studying for professional qualifications at the University's Institute of Translations."

The typical translation shop client, who may be a neighbourhood council, a trade union or a civil or environmental-rights action group, must show that they are unable to carry out the translation because they have no members or staff suitably qualified, or because they could not afford the cost involved.

The client must show that the work has some community or public interest and will benefit and help better secure the objectives of the group concerned. "We will not translate holiday letters from Yugoslavia, for example," says Ms van Agtmaal.

As the work is carried out entirely by unpaid student volunteers, it is necessary that the items, particularly the longer and more difficult ones, be brought within the scope of the students' study programme. This depends on the teaching staff concerned - four of whom sit as representatives on the governing board of the two shops.

The students are recommended to talk it over with their individual subject teachers in each case. Wietse, a third year languages student, recalled how one particularly large piece of translation work - a 200-page book - was eventually made the subject of a special subject project over an entire term for the group of language students involved.

Although there have been no other major book translation requests, the range and variety of work which the shop has tackled during its first year is impressive. To cope with this, the 70 students involved are split into language groups and contacted under a rota system by a contact who acts as intermediary between the shop and the group. It is possible to quickly reach these contacts without having to telephone or write to dozens of students each time that a request for translation is accepted. In particular, there is then little difficulty in finding translators in any of the regular languages in which services are provided, which include French, German, English, Spanish, Portuguese, Surinamese, Arabic, Turkish, Hebrew, Italian, Greek, Danish and Russian.

Only in the Slavish and Scandinavian languages is there a shortage of volunteers. In all the other translations can be provided within a month of the acceptance of work, or even faster if it is urgent. But for urgency, the client must first convince Wietse of his or her case.

"Urgency really means urgency to the client, but it must be for reasons which we accept. Even then, our ability to give this kind of priority depends very much on the availability of translators and the length and nature of the work. For example, we receive many

requests from school committees for translation of articles - perhaps from *Le Monde* - and we can then call on a large number of English and French translators for this purpose.

"English, French and German are in any event, the most frequently requested languages. But we also have a heavy demand for Spanish, and from neighbouring groups there are increasingly frequent requests for Turkish and Arabic - languages in which fewer translators are available. On the other hand, provided that the client reasonably short the question of urgency should not present a real problem," says Ms van Agtmaal.

Work undertaken by the shop is included in the University's research report on translation into English of a report on a South American housing co-operative, the preparation of a Spanish edition of an Indian group report on the Russell Tribunal, and an English translation of several articles about Argentinean mothers for the group Women and the Church. Others who made use of services were the International Gay Association (Ibians Secretariat) with an urgent plea last December, when they required both Spanish-English and French-English translators for their annual congress and, by contrast, the Peruvian Farmers' Union who needed a Spanish version of a publication on the relative merits of breast and bottle feeding for mother and child.

The ability of the translation shop to meet such varied demands is the measure of its success, while the increasing number of potential clients who now come every day through its front door is an indication that satisfied customers are providing some useful word of mouth advertising. This success has been made possible with the help of some very thorough planning and preparation which preceded the opening of this service last year.

But success has also brought some administrative problems in its train. The volume of work had become such that it was now necessary to review the criteria under which translation services were provided.

"The question, for instance, of whether some of the clients really could not pay, say, £30 for a page or two of simple translation, has to be looked at very carefully," says Wietse. "Under the present rules, which depend considerably on the client's word, this raises serious doubts on some occasions. Linked to this is the possibility that, for some clients, a financial subsidy might be obtainable for the work and if this was the case we should not accept it. But this means that we must be in a position to lay down stricter requirements and have clear decision making criteria."

It is the paradox of the translation shop's success that, by providing translation services without charge, it has whatever well-founded reason, it has in some cases been taking away work from qualified translators, which is precisely the professions for which most of the student-volunteers were training to enter. The translation shop, in particular, have reminded Wietse of this problem.

"We are very conscious of this difficulty, yet on the other hand we do not want to arbitrarily sign the right of volume of requests for this work for that matter, to cut off from the students this chance of valuable practical translation experience. If it comes to that, the unions themselves are also one of our best customers," she says.

But of one thing Wietse is quite certain and that is that the essence of running a successful translation shop is to avoid getting bogged down with the kind of long running administrative and decision making delays that accompany the work of the parent science shop. "A research enquiry in the science shop can sometimes take up to three years to bring to fruition and a 'going project' says Wietse. "We cannot run the risk of creating a system which involves this kind of delay. Our policy has been 'quick decisions and quick completions' and the way we want to keep it for the future."

Ngaio Crequer on the University Grants Committee's unenviable range of options for the axe

The problem the University Grants Committee has in deciding how to make severe cuts in university budgets is one of too much information.

The committee has had dialogues with senior members of each university which have dwelt upon the strengths and weaknesses of each institution, mainly hinging on what would be impossible to cut. This has been backed up by returns made to the UGC.

The subject sub-committees have all made preliminary reports examining in general terms their fields and are now looking more specifically at subjects within particular universities.

There is a vast range of criteria: the size of departments, staff-student ratios, the calibre of students as judged by entry qualifications, the sensitivity to overseas student fees, peer group judgement of departments, research council income and studentship awards, the esteem in the eyes of the local community, unit costs, age profile of staff, the amount of service teaching done by a department, and the nearness of a neighbouring university doing the same subject.

The criteria, and the above list is not exclusive, is so wide-ranging that the UGC must make its own priorities based on its own value judgements. It cannot, and is not, looking at institutions, *per se*, but at faculties, departments and subjects.

The department of X, say, may have only six members of staff, be expensive to run, and student calibre, judged by A levels, may be low. But these may be just as good reasons to build the department up. It is new, an innovation only recently begun (and innovation must be protected), the word has not got round yet to sixth-formers, but the trend is picking up, and it's the only one in Scotland.

Then, say, look at large departments of physics and chemistry. A neighbouring university puts on similar courses. They might have large numbers of overseas students, which have fallen off because of the fees increase. Candidates for the cuts? What about national considerations, surely this is precisely the group of subjects we should be encouraging, they are well placed in



Peter David explains how the DES did not suffer from the early disclosure of its plans to end local government control of the polys.

Governments often profit from newspaper leaks. True, there is usually some initial embarrassment as the Press exults at having lifted for once the heavy veil of official secrecy. Later, though, the ripples of excitement disappear and it becomes apparent that the leak has served a number of useful purposes. It has forced political antagonists to show their hands too early and, more important perhaps, it has prepared public opinion for what might otherwise have been an unpopular decision.

There is no evidence at all that the Department of Education and Science deliberately leaked its plan to end local government control of 98 polytechnics and colleges. But it is undoubtedly true that as a result of the leak Mr. Carlisle, the Secretary of State, is in a stronger position than he was three months ago to bring about radical changes in the management of public sector higher education.

The leak managed to break a powerful taboo by breaching the idea that the grand historical partnership between central government and the local education authorities need not endure forever. As early as three years ago, during the Oakes committee discus-

Why corners are the one thing the UGC really can't cut

local industry and the community, and can a university really be robbed of such vital subjects?

On the face of it, one simple way of making cuts would be to insist that universities move towards average unit costs for different subjects.

One of the interesting things to come out of the Swinerton-Dyer committee interim report, which is looking at rationalization at London university, was a series of figures showing the differences in unit costs and staff-student ratios within the university, and sometimes compared with other universities.

A table showing overall unit costs for 1978-79 showed differences of £3547 for Chelsea College and £2078 for Imperial College, £6247 for Imperial College, £3296 for Queen Elizabeth College, London and £3224 for Edinburgh in the physical sciences and £2081 for Sheffield and £2221 for Imperial in the social sciences.

Other figures, not directly comparable, showed some large variation in student-staff ratios, such as 5.1 for Westfield and 10.7 for Queen Elizabeth College in physical science, and 6.2 for Imperial and 14.0 for Queen Mary College, in mathematics.

These tables have been great eye-openers at London, as such figures have never been published in this way before and even members of Court were surprised by some of them. Naturally those colleges most costly in the past are now the most likely to be underfunded and the grant allocation should take this into account.

Probably anticipating the interest, Lord Annan, vice-chancellor of London University pointed out in the foreword of the report that unit costs and grant allocations differ for a number of reasons. These include the history, nature and location of the institutions, the way disciplines developed,



Lord Annan

the degree to which the UGC earmarked grants and research income. It is interesting to note that the Department of Education and Science is intending to penalise high cost polytechnics when the cuts are distributed in 1981-83. There is certainly room for greater equalisation of both academic and administrative costs in the universities but rationalization formulae crudely based on money will be sorely opposed.

So what are the other alternatives. One option is to be guided by the calibre of students, looking at rate of applications for subjects and A level grades. But to do this is to deliver up the future of the universities to the students. "God forbid" you can hear some people saying.

The University of London working party on medical costs looked at 17 different options involving closures and mergers of schools and departments. Its most interesting conclusion was that "far greater savings in terms of recurrent expenditure are possible by



Mark Carlisle, and Raymond Rickett.

carry the goodwill of the institutions with it. Against this background it is easy to see why the DES argued for a bold stroke to break the impasse. The officials' case was strengthened further by the scale of spending cuts emerging from the Government. Higher education came in for a spectacular drubbing in the White Paper in March, finally convincing ministers that the fat had been squeezed out of the system and the time had come for contraction. UGC-style solution for the public sector would be able to control the rundown of resources better than the local authorities and their ramshackle course approvals system.

There is no evidence that anything has been said since the proposal was leaked in February has changed the department's view. Vocal opposi-

significant alteration of staff-student ratios than by any choice between the options which have been studied."

It points out of course that reduced staffing levels would have an adverse effect on academic standards. This alternative is also an "equal misery for all" policy which many have spoken out against. What the UGC wants is a "fewer and less but not worse" strategy which can only mean selective excision.

Drawn into the whole debate is the question of overseas students. Departments which in the past have relied heavily on overseas students for their existence, and which have been unable to maintain recruitment because of the high fees are now starkly vulnerable.

The latest statistics from the Universities Central Council on Admissions for example show a 40 per cent drop in overseas applications for 1981 entry in civil, electrical and mechanical engineering, and in the case of civil engineering, there is also a 15 per cent drop in home student applications.

So departments in this field seem prime cases for closure. But these admissions are very much influenced by the present economic recession. And is it in the country's interest to run down civil engineering?

So how will the UGC make its cuts? First it will accept all offers with alacrity. Vice chancellors have indicated, with varying degrees of reluctance, where their weaknesses are and where student numbers can be cut.

Secondly, subject groupings which depend too heavily on overseas students will be very seriously examined and proposals to abandon some of them will be made.

Thirdly, subjects which could be quite easily taught at the local polytechnic, where there may be empty places and where there would only be marginal costs incurred, will be prime targets.

Finally, there must need be a random selection of subjects which will need to go, and where they are will depend upon geography, reputation and which priorities the UGC decides are over-riding. That, so far, is anyone's guess.

Dr Ray Rickett, chairman of the Committee of Directors of Polytechnics, wants local government to retain an influence on local governing bodies, but not on the national apportionment of funds.

The support of the institutions provides the DES with a powerful argument for carrying its plans through despite the opposition of the local authorities. It vindicates their claim that the extent of mutual disenchantment between local government and some major colleges is threatening the efficiency of the sector. But there are two other compelling reasons for supposing that the department will not deviate from its intention to end local authority control.

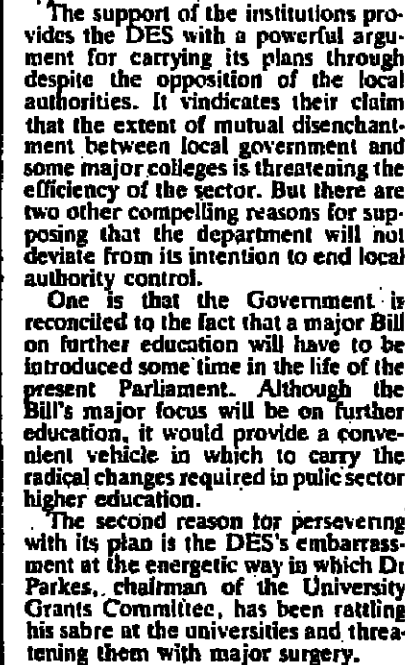
One is that the Government is reconciled to the fact that a major Bill on further education will have to be introduced some time in the life of the present Parliament. Although the Bill's major focus will be on further education, it would provide a convenient vehicle in which to carry the radical changes required in public sector higher education.

The second reason for persevering with its plan is the DES's embarrassment at the energetic way in which Dr Parkes, chairman of the University Grants Committee, has been rattling his sabre at the universities and threatening them with major surgery.

For these reasons, the local authorities are unlikely to succeed in their efforts to persuade the Government to abandon its plans. Premature disclosure gave government a chance to fire its heavy guns first, but left precious little in the magazine for later engagements. When the DES finally publishes a sanitized version of its proposals, it is likely to contain a few disarming concessions to local authorities - like generous representation on the national body - but few substantial changes.

Whatever the educational merits of their case, the local authorities have been sunk politically by their failure to keep their own polytechnics and colleges on their side. Some councillors believe their unpopular status from having been forced to implement central government policies. If they are right, the fate of the institutions when they are brought under more direct central control is likely to be gloomy indeed.

Living with the leak



Mark Carlisle, and Raymond Rickett.

has come from the local authority associations and from the National Association of Teachers in Further and Higher Education. Mr Carlisle may have been taken aback by the unanimity of the local authority objections, particularly from the Conservative shire counties and their leader Mr Alan Lawton. On the other hand, the leaked paper predicted that the local authorities would be angry and dismissed their political significance.

The fury of the local authorities has been counterbalanced by the enthusiasm with which the leaked proposals have been embraced by most polytechnic directors and college principals. The polytechnic directors have been poached off from the Council of Local Education Authorities to become associated with CLEA's own plans for a national body.

It was not by chance that the world's first practical application of the viewdata information retrieval system was in the Careers Advisory Services of British universities and polytechnics.

The technology which permits computer stored data to be displayed on modified television sets, linked by ordinary telephone lines, was developed by the Post Office. Even before the Post Office was ready to conduct its own trials, the system was operational in several careers advisory services.

The viewdata system, now marketed under the name Prestel, allows us to use a simple key pad, similar to a pocket calculator, to gain immediate access to computer data banks of almost infinite capacity. The 'information providers' who supply data for the system can update this within minutes, using a compact editing keyboard similarly linked to the computer by telephone line. It is an efficient and adaptable information retrieval system for handling vast quantities of data requiring constant updating.

We are fortunate in having what is widely considered to be the world's finest careers counselling service operating within universities and polytechnics. Many countries, even social welfare states like Sweden, have none at all. Their excellence is in part due to our early recognition of the need to provide counselling, and our willingness to fund this non-academic activity. It owes even more to the professionalism of their staff, and their willingness to accept innovation and to adopt new systems and technology.

However, innovation has not been introduced for its own sake, but in response to clearly identified needs. Viewdata offered the best possible solution to the practical and long recognized problem of being able to supply undergraduates, on demand, with up-to-the-moment information on those employers with current vacancies, together with the number and accurate details of those vacancies. Printed information had been found to date too rapidly, particularly as the graduate recruitment season progressed, and the vacancy situation changed from day to day.

The swift adoption of viewdata by the careers advisory services in Britain was the result of the imaginative co-operation of several careers services, the Post Office, a number of major graduate employers, and, as the prime mover, the New Opportunity Press.

The New Opportunity Press (NOP), as the leading publisher of career opportunities literature, works closely

Screen test for graduate job-hunters

Philip Schofield reports on the use of viewdata systems in the university and polytechnic careers advisory services

with the careers services, and was familiar with the problem of gaining access to current vacancy information. The potential contribution of viewdata was quickly recognized, but not immediately available.

Although the Post Office had developed the technology, including having installed the first viewdata computer, television set manufacturers were not prepared to make sets until there was a database available for buyers and no one was prepared to set up a database until modified television sets were available to potential users.

Eventually NOP broke the impasse by having sets hand made on laboratory benches at their own expense, and then installing them in a number of careers advisory services located within a local telephone call of the first computer. NOP then persuaded a number of leading graduate employers to pay to put information into the system, and keep this regularly updated, in the full knowledge that initially the response would not contribute significantly to their recruitment programme. At the same time, NOP had to develop the complex indexing systems, and the graphic techniques necessary to present the information clearly and in a systematic and structured way. This even involved designing new alphabets appropriate to the medium. The system became operational in 1977 under the name 'Careerdata' - several months before the first Post Office trials, and two

years before the public service opened. The original black and white viewdata sets have been replaced with colour sets, and are now available to undergraduates seeking careers vacancy information in 31 universities and polytechnics. Most are installed in the careers advisory services, although a few have been installed in adjacent libraries because of space limitations. It is intended that another nine will be installed by September. The rate of growth is slower than originally planned. The delays arise from investment constraints in British Telecom (successor to the Post Office) which have slowed the rate of Prestel computer installations. These must be within a local telephone call of users, or the service is too costly. Many universities and polytechnics are not yet served by a local computer.

There are now two information providers with data bases aimed specifically at providing details of careers opportunities for newly qualified graduates - AVS/Intext, an NOP associate company with 'Careerdata' and VNU Business Publications with 'Tiger'. Undergraduates can also call up the Manpower Services Commission's PER database, although this is aimed at the overall management, professional and technical market.

Although 'Careerdata' and 'Tiger' compete for employer entries, and for the attention of undergraduate users, NOP and VNU co-operate in providing the careers advisory services with

what is a virtually free viewdata service. VNU provide the modified colour sets without charge, and AVS provides each careers service with an annual grant of £300 to cover the British Telecom charges for computer time of 3p per minute, and the local telephone calls linking the viewdata set to the computer.

Although detailed statistics on undergraduates' use of viewdata are not available, British Telecom recorded more than 98,000 'FrameAccesses' for 'Careerdata' alone in the six months from February to July 1980. Accesses to the 'Tiger' and PER databases are thought to be lower.

The first evaluation study of viewdata in the careers services has just been conducted by John Franks, a careers adviser at the University of Hull. His preliminary findings, based on the experience of 13 careers services, confirm that its main value is in providing up-to-date information on current vacancies. Unfortunately, disappointment was expressed at the failure of many employers to update their entries regularly, and it was suggested that each frame should be dated. This is already done with some 'Careerdata' frames.

Some employers were thought to provide insufficient data. 'Careerdata' and 'Tiger' differ in that employers using the former generally take several 'frames' of 24 lines, each containing 40 characters. 'Tiger' employers customarily take single frames. Both systems

provide detailed employer indexes.

The study suggests that costs are not unacceptably high, most services key costs close to what was described as a 'very generous' £300 grant. However, extreme concern was expressed at the much higher charges proposed by British Telecom, and thought to bring the survival of the service into serious question.

If charges remain reasonable, the adoption of viewdata by other careers services is likely to accelerate. Furthermore, two developments should improve the value and usage of the system. Firstly, a printer can be attached, enabling users to have a 'print-out' of any frames of interest. At present printers cost £300 upwards, but the price should fall. The second improvement will be to replace the numerical key-pads used to access the computer with ones also having alphabetical keys. This will permit full use of the interactive capability of the system. The user, having seen a vacancy of interest, can provide information and requests to the employer through the computer. For instance, they can provide personal details, or ask for a company brochure and application form.

These developments, combined with viewdata's extension to more careers services, reasonable charges and improved employer entries should guarantee the system an essential place in the graduate recruitment process.

The inductive loop is a wire placed around a classroom which allows people with hearing aids to pick up the speaker, using a microphone, without any background noise interference. This is particularly useful as the deaf, even with a hearing aid, are apparently unable to filter out extraneous noise such as passing traffic.

However, it would be impossible to equip all the 260 study centres with these loops, particularly as many centres have only one partially hearing student in a group.

The OU's research team came up with a modification of the hearing aid where the internal microphone was removed and replaced with a small socket for a larger microphone on a cable, again getting rid of all background interference. The Department of Health and Social Security has allowed 150 hearing aids to be modified in this way for OU students.

The microphone can then be passed around among the students in the tutorial so that the deaf student can hear everyone. It also encourages people to speak one at a time: a person with hearing impairment can be completely at a loss if two or three people speak simultaneously.

One student at Inverness also used her adapted hearing aid to allow her to hear broadcasts by placing the microphone close to the radio or television.

But it seems the OU's brainchild can have further uses. At one summer school, Dr Hale noticed one group sitting on the grass carefully handing a microphone to one another.

He later approached the tutor and said he hadn't realized there was a hearing impaired student in that group.

"There isn't," said the tutor. "The microphone isn't even switched on. But people think so much more about what they're going to say when they say it into a microphone, and they don't all talk at once - I'm holding the best tutorials I've ever had."

Olga Wojtas
Scottish Correspondent



Called to account

Accountancy is one of the youngest professions. The Institute of Chartered Accountants of Scotland, which is the oldest professional accounting body in the world, was founded as recently as 1854. Yet the profession has been growing rapidly, and its increasing size and importance are a function of the expanding financial complexity and sophistication of modern society. Governments, public corporations, and large industrial and commercial enterprises depend more and more for their efficient operation upon the skills of well educated and professionally qualified accountants. Even university vice chancellors have learned that financial naivety can be a serious handicap, and I know of at least one vice-chancellor whose ignorance of financial matters made him a virtual prisoner of the university's senior administrative officer.

The growth in the size of the profession has been accompanied by an improvement in its standards of education and training. This is illustrated by figures published by the largest of the six British professional accountancy bodies, the Institute of Chartered Accountants in England and Wales. At the beginning of the 1970s, 1,300 graduates a year were entering into its 'training contracts' with firms of chartered accountants; by the end of the decade this had increased to 4,100 graduates a year, and the percentage of the total intake represented by graduates rose from 27 per cent to 78 per cent in the same period. (If a graduate passes all the professional examinations on schedule he or she can expect to qualify as a chartered accountant within three years of entering into the training contract.) Increasing numbers of women are also being attracted to chartered accountancy: women comprised only 7 per cent of the total numbers entering English Institute training contracts at the beginning of the last decade, but this had risen to 25 per cent by 1980.

All of the major firms of chartered accountants (with names like Price Waterhouse, Cooper & Lybrand, Peat Marwick Mitchell, etc. that are literally household words in all the financial centres of the globe) have a long standing policy of hiring only university graduates as trainees, and these firms invest substantial resources in providing in-house training facilities for their professional employees.

These changes have been matched by a very rapid growth in the number of academic accountants in British universities. When I moved to the chair of accounting in Edinburgh University in 1967 I was its first full-time occupant, although the chair had been founded in 1919. All of its previous incumbents had been senior Edinburgh practitioners who had taught at the university on a part-time basis. In 1967 there were only four other professors of accountancy in the whole of the United Kingdom; today there are well over 50, and several universities, Glasgow and Manchester, Manchester, Glasgow and Birmingham have more than one chair.

As others in your Man of the Month profiles have said, I do not regret not having gone to university - even if I had the brain to get there, which I doubt. My belief, although it isn't currently popular, is that if you are going to be a professional man the sooner you can start your practice after passing the exams the bigger the head start you have over those who have been to university. Experience is what counts. Secondly, it is important to know as many people as possible; and the quicker you can do that the better.

A second obstacle to the improvement of the quality of accountancy education in this country has been the academic snobishness. If the academic accountant's hair has been too long for the taste of practitioners like Sir Kenneth Cork, it has also been too short to suit many scholars in the more traditional academic disciplines. Oxfordshire has a lot to answer for here, and indeed it is only relatively recently that subjects such as economics, political science, engineering, and English have managed to secure acceptance

So the growth has been spectacular. Yet the strange thing about these developments in Britain is that they have taken so long to happen. Despite the fact that the accountancy profession was born in Scotland, British practitioners have been much slower to recognise the importance of the universities, both in the education of future practitioners and as centres of research in the subject, than have their counterparts in the United States, Canada, and Australia.

It is worth while looking into some of the reasons for this, because it will provide some insight into a number of problems that have to be faced in the future.

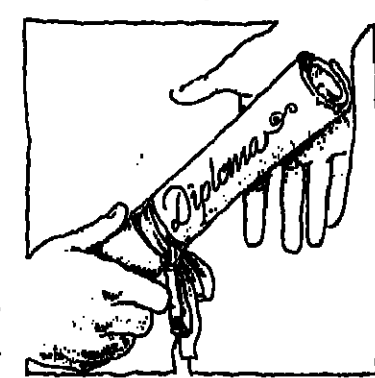
To begin with, there has been the anti-intellectualism of many of the leading members of the profession. Virtually all of the senior members of the profession in the United States accept that a professional accountant should be a university graduate, and that he should have had a solid grounding in the theoretical foundations of accounting, economics, and law at the very least. In most cases he will also have had instruction in other relevant subjects such as finance, computer science, statistics, operational research, etc.

The level of numeracy and general intellectual ability required of a modern accountant is such that someone with a university degree in the subject is plainly far better prepared for a professional career than a school leaver. Yet even today there are leaders of the British accounting establishment who are not really happy with the implication that we shall eventually have to have an all-graduate profession.

Thus, Sir Kenneth Cork, a partner in a leading firm of London chartered accountants and a previous Lord Mayor of London, was interviewed a couple of years ago by *Accountancy*, the English Institute's journal, and in discussing education for the profession he said:

As others in your Man of the Month profiles have said, I do not regret not having gone to university - even if I had the brain to get there, which I doubt. My belief, although it isn't currently popular, is that if you are going to be a professional man the sooner you can start your practice after passing the exams the bigger the head start you have over those who have been to university. Experience is what counts. Secondly, it is important to know as many people as possible; and the quicker you can do that the better.

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In our continuing series on training for the professions Edward Stamp examines the inequities of supply and demand in the accountancy world.

within the two older English universities. More generally, British universities as a whole have been slow to recognise the need to introduce professional studies (especially at the graduate level), in contrast to their counterparts in the United States. Leading American universities such as Harvard, Stanford, Berkeley, and Chicago have been devoting substantial resources to schools of business and finance for generations, and it is notable that when the Harvard Business School was founded it was with the blessing of that distinguished Oxbridge expatriate Alfred North Whitehead.

However, the lion's share of the responsibility for the slow development of accounting as an academic discipline in Britain (especially in England) belongs to the leaders of the profession who failed for so long to recognise the importance of advanced academic studies in the subject. Vice chancellors and the UGC can scarcely be blamed for lack of foresight on the part of the profession.

The conditions that gave rise to this lack of professional foresight have not changed, despite the improvements in educational standards (that have occurred in spite of them). The basic problem, which remains, is that the profession is split into six separate bodies with over 100,000 members between them, and the large numbers of backwoodsmen make it extremely difficult for the leadership to get the profession as a whole to accept the need for new policies. The failure, over 10 years ago, to integrate the six bodies into a more cohesive structure has prevented the rationalisation of education and training policies in the profession, and the subsequent failure of the Solomons Report to win support for its long range proposals has exacerbated the effects of the failure of the integration scheme.

We thus find ourselves with a split profession, dominated by the chartered accountants many of whom are

engaged in work that it would be an exaggeration to describe as advanced or sophisticated. Unlike a country doctor (who is just as liable to have patients with a serious illness as the Harley Street physician, and who must be educated and trained accordingly) the country accountant-practitioner requires far lower levels of education and training than a partner in a major international practice - whose clients will include some of the largest corporations in the world.

Indeed, if it were not for the accountants in these large firms there would still be little impetus for change even today. The demand for graduates, and increasingly for graduates in accounting, largely originated in the major public accounting firms. This demand is in turn derived from the expansion of these firms in response to the growth in public and private enterprise, coupled with the recognition that higher standards of practice can only be achieved by employing people of much higher calibre. So the profession has turned to the universities and to the polytechnics.

The trend is now well established and can be expected to persist. It is likely to be reinforced when the Brussels Commission introduces its Eighth Directive on company accounts, harmonising and raising the general standards of education and training for the auditing profession within the EEC (although the directive has nothing to say about the equally important area of management accounting education).

On the prospects for the future of professional education in accounting seem bright. Major improvements have been made in the last decade, in spite of the backwoodsmen, and British universities are rapidly catching up with those in the United States in the range and quality of their education and research in accountancy. Yet a number of problems remain, and there is no room for complacency. The remainder of this article will deal with the more important issues that need to be resolved with a sense of urgency.

One problem, nowhere near solution, is the gulf separating financial and public accounting on the one side from management accounting on the other. The profession is dominated, in numbers and quality of their education and research in accountancy. Yet a number of problems remain, and there is no room for complacency. The remainder of this article will deal with the more important issues that need to be resolved with a sense of urgency.

University departments of accounting and finance are bridging this gap in the education of accountants because their degree courses not only cover management accounting as well as financial accounting, they also include a wealth of other material (such as economics, statistics, finance, computer science, etc.) that is relevant to the needs of management accountants working in industry.

But once the graduate leaves university he is forced to choose between chartered accountancy (in which the training gives virtually no attention to management accounting problems) or moving straight into industry, where his training is liable to be equally narrow the other way.

A second problem is the failure of the profession to integrate and coordinate its training policies and methods with the education in accountancy being provided in the universities.

Part of the difficulty lies in the fact that the graduate intake is made up of two groups: those with 'non-relevant' degrees (e.g. in English, science, or history), and those with 'relevant' degrees in accounting, economics and related subjects.

Non-relevant graduates are required to take a 'foundation course' from private tutoring firms, supposed to provide instruction in the academic material contained in relevant degree courses. In fact these foundation courses are largely technical and procedural in their content, and a far cry from the theoretical and conceptual work that is done in university courses.

All of this is part of an even broader problem, namely the failure on the part of the profession to think out the relationship between the theory and the practice of the subject.

Clinical training in medicine follows and is built upon the academic study of the theoretical foundations of medical practice, including subjects such as physiology, biochemistry, anatomy and so on.

A similar approach should be followed in the accounting profession. Full-time education in the theoretical foundations should precede training in skills and techniques. The training programme offered in professional firms or industry should provide a link between the theoretical knowledge already acquired at university and the practical skills and expertise in which the graduate is being trained.

In this blending of education and training it is not the function of university courses (or the foundation courses provided to non-relevant graduates) to train people in the practical aspects of book-keeping, auditing, tax, executorship, accounting, and the like, and university examinations should continue to be a test of academic knowledge and not of book-keeping and other skills and techniques.

If we accept the doctrine known to economists as the theory of comparative advantage it seems clear that the comparative advantage of the universities and polytechnics lies in educating accounting graduates and in providing graduate conversion courses for non-relevant graduates. In both cases the concern is with the theory, principles and concepts of accounting and of its cognate disciplines.

Training, in which the graduate's employer has the comparative advantage, is continued on page 10.



Called to account

continued from page nine

age, should be designed to develop practical skills, expertise and technique.

As in medicine, every effort must be made to relate the training (or clinical) work to the theoretical foundations provided at university. There must also be an intelligent co-ordination between the training process and the professional examinations, and these examinations should be designed as a fair test of professional competence.

There is in fact very little co-ordination, or even communication, between the education and the training sectors of the profession in Britain. Worse still, there is convincing evidence that those responsible for the professional examinations are badly out of touch with the profession's own training policies and procedures. Thus the Scottish Institute of Chartered Accountants is the only one of the six professional bodies that is actively involved in the provision of training courses for its future members, and is the only body that requires an "academic year" to be spent in a university by all non-relevant graduates. Although this reflects traditional Scottish concern with education and training, it also underlines the weaknesses in the English system. These English deficiencies are reflected in the deplorable low pass rates in the English Institute's professional examinations. In the last five years the pass rate in the first of these (professional examination I) has been around 50 per cent; the pass rate in the final exam (professional exam II) has averaged little better than 30 per cent. The pass rates of graduates have been above the average (roughly 65 per cent for PE I and 45 per cent for PE II), but these results, especially the high failure rate at the final hurdle, represent a serious waste of human resources and are an appalling indictment of the training and examination methods of the Institute and the lack of co-ordination between the two.

A career in accountancy, and especially in public accountancy, can be very lucrative, and senior people in larger firms can expect to earn well £100,000 a year. Income of £50,000 a year are not at all unusual for partners in their forties. Yet professional subscriptions are relatively low. The profession needs to spend much more on education, training and research, and it can certainly afford to do so. University graduates bring to the profession an educational background that costs the profession nothing. The profession also obtains, free of charge, the fruits of university research in the subject.

In these difficult times it would not be unreasonable to expect the professional accounting bodies to make a major contribution towards these costs.

They are unlikely to welcome this suggestion, but it is surely not too much to expect them to display more concern about the quality of their training procedures. If these procedures can only succeed in getting one person in three through the profession's own final examinations then there is something very badly wrong indeed with the training, or the examinations, or with both. It costs the nation a lot of money to produce the graduates whom the profession now attracts. It is up to the profession to see that they are trained properly. The present policies, or the lack of them, are resulting in a quite inexcusable waste of talent, and cause much unnecessary human anguish.

It will take more than money to solve these problems. Willpower, imagination and intelligence are also required. But money will help and the profession has plenty of it. If professional subscriptions were increased by a mere £20 a year (tax deductible) it would provide an extra £2,000,000 a year that could be invested in improved training, in research, and in contributions to universities and polytechnics. At the very least it is high time that the English began to show as much concern as the Scots about these matters.

The author is director of the International Centre for Research in Accounting and professor of accounting theory at the University of Lancaster.



Students waiting to enrol in the vestibule of Regent Street Polytechnic around 1900.

The pioneering polytechnics

Pamela Horn looks at the history of London's advanced technical education colleges

"In London... one of the most difficult of educational problems has been how to deal with the young men and women between 16 and 25, who... are earning their livelihood during the day, but whose general culture and technical training obviously has in some way to be provided for... The London Polytechnic Institutes are now gathering in a rapidly growing percentage of the young men and women between these ages, whether artisans or factory operatives, clerks or shop assistants." Sidney Webb, *London Education* (1904).

Although it is only since 1966 that polytechnics have become a significant part of the British higher education system, their origins date back almost a century. Unlike their European counterparts, which from the start stressed the importance of scientific and technical expertise, these early British institutions had far wider aims. As the founding charter of many of them put it, they were to foster "the industrial skill, general knowledge, health and well-being of young men and women belonging to the poorer classes".

These moral aspects of the polytechnics' work were particularly to the fore at Regent Street, the first to be established. This was opened in 1882 by Quintin Hogg, a City merchant, who transferred to it the evening classes he had been running for working class boys at Long Acre. Hogg saw his work as a rescue mission, emphasising the need not merely to provide technical instruction but also recreational and sporting facilities, within a generally religious atmosphere. As his daughter later wrote, the "religious life was as virile and prominent as the social, athletic or educational". He regularly conducted a Sunday afternoon Bible class for between 500 and 600 young people, and according to his daughter, it was this aspect which lay nearest to his heart. Even the title of the college reflected that preoccupation in its early years, being known as the Polytechnic Young Men's Christian Institute.

Nevertheless, while many contemporaries sympathised with his view that the polytechnic should act as an antidote "to intemperance and vice of every kind", through its broad social objectives, others were attracted by the educational and training facilities offered. At that stage, instruction for mechanical in the central, and from the outset, Hogg was determined that the college should be of a high quality. Inevitably there were teaching troubles, with the shortage of teachers one of the most serious problems. But it was with pride that he recorded the conclusion of the London Trades Council in July, 1883, that "any system of technical, scientific, or theoretic instruction for the industrial population should be similar to the... instruction given at the polytechnic institute".

Regent Street, however, could not satisfy the needs of a whole capital city, and the few other technical institutions which had been set up, like Finsbury Technical College, the state began to recognize the deficiencies in

the nation's educational provision when in 1889 the Technical Instruction Act was passed, authorizing county councils to levy a penny rate to promote technical and manual instruction. In the following year, it allocated cash raised by an increase in the excise duty to these councils, specifying education as one of the purposes to which the money could be devoted.

London County Council was slow to utilize the funds for instructional purposes, and it was not until 1893 that it set up a Technical Education Board, under the chairmanship of the Fabian reformer, Sidney Webb, to concentrate on this aspect. Prior to that, as an LCC report for 1892 admitted that the council was not only very far behind Germany and France in the quality and quantity of its technical education, but also far behind the chief provincial towns. Manchester, for example, had 14,000 students in technical evening classes; London, to be on a par with this, should have had 140,000 students. Instead of the 24,000 recorded.

But if moral pressures and educational needs were pushing the LCC into belated action, a third source of encouragement came from the diversion of certain Parochial Charities to the capital to educational ends. The Charity Commissioners, inspired by the work of Quintin Hogg at Regent Street, recommended the setting up of a whole network of similar institutions throughout London with the help of these funds. Soon, some of the Livery Companies added their contribution. The Goldsmiths' Company assumed responsibility for the establishment of Goldsmiths' College at New Cross; the Drapers' Company financed the East London Technical College; the Skinners' Company contributed to Northampton Polytechnic Institute; and the Clothworkers' Company gave substantial donations to the Northern Polytechnic. This investment quickly bore fruit: with Goldsmiths' College opening in 1891, Borough Polytechnic following in 1892, Battersea in 1894, and the Northern Polytechnic and Northampton Polytechnic Institute in 1896. By 1904, there were 12 such institutions in London, with around 40,000 students. Regent Street alone contributed about a third of them, mainly through evening classes.

However, if evening instruction formed the bulk of the work in these early days, the polytechnics were soon supplying a growing range of daytime classes as well. As Sidney Webb proudly declared, their work was "not confined to any one grade - still less to any one branch of knowledge or to any one sex - [it] ranges from the higher grade day school for boys and girls of 14, up to high university instruction and postgraduate research". Trade classes predominated, but the typical London polytechnic did not "belong exclusively to elementary, to secondary, or to university education". It was not designed to be a day college, nor yet an evening

institute. It was to this mixture he attributed the movement's "remarkable growth and success".

Nevertheless, within the general expansion some specialization began to emerge. Battersea, for example, by the early twentieth century was regarded as the natural home for classes in technical chemistry, the City of London College concentrated on commercial education, and the Borough Polytechnic catered especially for artisans.

Regent Street has a flourishing photographic department, as well as schools of architecture, engineering, art, carriage building and business training. As early as 1888-89 its prospectus was advising female students of the value of its civil service courses: "the appointments in the Civil Service obtain, the duties being light and the hours of attendance short".

Northampton Institute was the most "technical" of the polytechnics, and its electrical and mechanical engineering departments were regarded as the best equipped in London. Two-thirds of all its evening class students were recruited by this sector. Its work on technical optics was likewise considered unique by LCC inspectors. Already by 1909 it had 76 full-time students reading for engineering degrees and paying fees of 15 guineas per annum. This compared with 167 engineering students at King's College, London, where the fees were 50 guineas a year, and 130 at University College.

Webb gloried in the variety of courses offered and in the fact that for the first time bright working-class youngsters could study for a degree. In his view not a dozen such students could have afforded to attend the existing university colleges. Even hostile observers recognised the polytechnics' pioneering role in this regard. As the principal of King's College grudgingly admitted, they were helping to create a university tradition among the poorer sectors of society: "There can be no doubt that the existence of the polytechnics and their connection with the university have done a great deal to democratize university education".

However, he and many other critics, new drawbacks in the unplanned growth of the new institutions. The provost of University College even referred to their "megalomania". "Class after class and subject after subject has been added to the work of these polytechnics, to a large extent without any objective in view". But to the principal of King's there were "very main" objections to the expansion. First, the standard of teachers employed was unsatisfactory, and many of them were seriously overworked. Secondly, their competition was likely to undermine the prosperity of existing university colleges, because their courses were

cheaper; thirdly, although their students obtained a degree, they were unable to do so in appropriate surroundings: "The atmosphere of a polytechnic may be a very good one; but it is not a university atmosphere". Finally, they were expanding into areas "inconsistent with the purpose for which they were founded". Instead these "upstarts" should be placed firmly in an inferior educational slot. At King's there was a good deal of non-university level work which "we are anxious to get rid of". This could be farmed out to the polytechnics, and in return their undergraduates should attend the university colleges.

Not surprisingly, the principal of Birkbeck College, one of the polytechnics mentioned in this connection, reacted angrily, pointing out that not only had his own institution almost as many students graduating as King's, but its history was longer. King's College has been chiefly known in the past as a theological institution, and as an evening coaching establishment for the lower Civil Service examinations, he sourly observed.

But the education officer of the LCC put the critics' views most succinctly when he declared: "Universities are the institutions for making officers; the polytechnics were intended to be institutions to make the rank and file the most capable rank and file in the world".

Even within the polytechnics themselves there were those who felt that by moving into university work, they were betraying their mission of providing technical instruction for working-class degrees and paying fees of 15 guineas per annum. This compared with 167 engineering students at King's College, London, where the fees were 50 guineas a year, and 130 at University College.

Many similar arguments over the polytechnics' role have, of course, survived into our own times. Though the end it is the expansionist school of Sidney Webb and his allies, who seem to have emerged victorious. As early as 1903-4, six polytechnics were providing complete degree courses for over 500 undergraduates in day and evening classes. By 1908-9 they numbered 834, four-fifths of them in evening classes. It was in these circumstances that Webb could boast: "Even the provincial universities, with all their dignities and degrees, often do a less work of university grade than a London Polytechnic". Not surprisingly, it was precisely that fact which contributed to the suspicion with which the first polytechnics were greeted in university circles. It is a situation which they have not entirely outgrown even in the 1980s.

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David Skyrme calls for more planning to meet the microchip challenge

Running the circuit round the campus

The micro-chip or microelectronics revolution is upon us. Although its full effect has yet to be felt, its impact on higher education will be profound. No establishment that wants to play its part in the education of tomorrow's community can ignore the dramatic changes now occurring.

In this article we shall discuss some of the technology trends in microelectronics based products. Then we shall review how they are changing the work environment of academic and administrative staff alike. Finally, we shall present a set of guidelines to assist policy makers and senior staff to face the challenges ahead with confidence.

Often, one gets the feeling that the so called micro-chip revolution is an overnight phenomenon. Certainly, it was not until the BBC television programme *The Chips are Down* was shown that the general public and most policy makers became aware of the technological possibilities of the chip. But microelectronics technology has, in fact, been evolving steadily over the last 20 years. So regular has been its rate of progress that the values of several key electronic parameters when plotted logarithmically against time follow very closely a straight line. What this means is that prices are decreasing or performance increasing at a fixed percentage rate each year. This percentage factor is 40 per cent for logic elements (the heart of any calculator or computer) and an even more dramatic 80 per cent improvement for semiconductor memory elements.

These trends have a significant effect on product prices. For example, the performance to price ratio of computer systems hardware is improving overall at about 25 per cent a year. Thus, a university cantodayreplace its 10-year old mainframe computer with one that has over twice the capacity at well under half the price. Furthermore, it requires only a fraction of the floor space, consumes much less power and is much more reliable and less costly to repair than its predecessor. Another example is today's hand held calculator which is more powerful than a 1960 mainframe computer.

Technological advances are also making it easier to get information in and out of computers. Traditionally, punched cards were used for input and line printers for output. Today such batch-oriented processes are yielding to terminal based systems in which a user can access information in the computer directly from a visual display unit. Such a terminal exploits advances in microelectronics as well as raster scan video technology. Just like domestic television which exploits the same technology the use of colour is becoming a viable proposition. Hence sophisticated colour graphics terminals are available at less than a tenth of their 1970 cost, and today cost only a few times more than the more basic monochrome alphanumeric terminals. Such cost trends make it very attractive for academic and administrative staff to use such terminals to display their computer output in the form of coloured graphs, bar charts, histograms, and diagrams.

The next major step forward in computer input and output will be speech synthesis and recognition. Even today speech input and output devices are used in specialized computer based banking, stores control and telephone information systems. The Texas Instruments "Speak 'n Spell" toy costing less than £30 shows that such techniques need not be expensive. We can, therefore, expect that voice communication with computers may well become the norm in the decade.

One of the consequences of the steady price reduction of microelectronics has been the rapid spread of personal microcomputers, such as Commodore PETs and Tandy TRS-

80s. These table top computers are now widespread in many university departments, colleges, schools and even in many students' homes. But today's numbers of microcomputers are just a fraction of the number we can expect to see on the campus of the future. Industry experts predict that the price and technology trends of the past 15 years will continue into the future. Hence in just a few years time it will be very realistic to provide every professional member of staff with a desk-top computer as powerful as today's much larger minicomputers. It would also have significant amounts of local semiconductor memory and personal magnetic disc storage. Couple such a system with another current technological development, the videodisc which can play back pre-recorded video material, and the potential for changing the educational environment is enormous.

Technology is also making its impact on educational administration. For preparing standard letters or documents, the conventional typewriter is no match for a word processor. Also emerging are intelligent photocopyers which can merge original material with standard formats and headings. In larger establishments with their own print shops, phototypesetters can take output directly from computer based text processing systems. Even the telephone system, which from the user's viewpoint has changed little in the last 20 years, is now beginning to look distinctly old fashioned. Modern digital switchboards can re-dial engaged lines, redirect calls, report faults and keep records of all external calls for analytical and accounting purposes.

Overall, it doesn't require much imagination to realize the technological potential of the microprocessor. Everybody involved in educational budgeting knows full well that an establishment's most expensive resource is people. Yet unlike price trends in microelectronics, people costs continue to rise. Here then is one of the fundamental factors affecting future planning. For in the 1980s, the cost of acquiring microelectronics based hardware is small compared with the cost of using it effectively. With a computer, the costs of software, maintenance and services far outweigh its capital cost over its lifetime. The key to implementation of new technology must therefore focus on people related costs. Furthermore its application must be geared to people productivity and their working environment.

What then are the attitudes of educational staff to new technology? In the case of computers early users were predominantly researchers who used them for scientific calculations. As lowering costs made them affordable within departments, many more potential users were exposed to their advantages. Today you will find sociologists using the computer to analyse survey results, geographers plotting out demographic trends and literary researchers analysing word frequencies and concordances.

Computers are also increasingly used for teaching purposes, not just for computer assisted instruction but for problem solving and simulation exercises. With many more school leavers today being "computer literate", students themselves are demanding more access to computers while at college or university.

Many administrators are also changing their attitudes towards computing. Whereas traditionally the computer was viewed as a record keeping and accounting system, today the forward looking administrator wants to use it as a real time management information tool, to help in the active management

of the institution's resources. Even for day to day office procedures the permeation of technology is changing peoples attitudes. For all that may be written about resistance to change you will not find many secretaries who have tasted the benefits of word processing wanting to revert to using traditional typewriters.

In all these areas - research, teaching and administration - users are experiencing the benefits of computers, word processors or other products of microelectronic technology. With good systems properly implemented, most users properly consulted and advised how to use them to maximum effect will want to use them even more.

With the proliferation of microelectronic based products and their affordability, how should an educational establishment acquire them and integrate them into the daily life of the institution? Today, much is left to individuals in each department with little or no coordination of the needs of other departments or the institution as a whole. This is where the planners and policy makers should take an active leadership role. But to many the scope of technology is somewhat bewildering and their practical experience limited.

However, we can obtain a good perspective from the experiences of pioneering establishments and suppliers of computers and microelectronic products. From this vantage point we can draw up a set of useful guidelines.

● **Appoint a head of information services.** This person should be responsible for coordinating the application of information processing technology across all departments. Such a person should have a team with expertise not just in computers, but in a broad base of information services.

● **Focus your resources.** Establishments which cannot afford peak ventures in times of economic cutbacks are not facing reality. The college which survives is that which builds up a reputation in a limited number of areas, rather than the one which has a wide-range of mediocre courses. If attracting good staff and students is one of your objectives, particularly for scientific subjects, you must invest in the latest and best in technology. The league table of American universities, as far as academic achievement in computer science is concerned, is dominated by those with such a forward looking outlook. Schools which were unknown several years ago have leapt up through the league table by consciously investing in the latest generation of computers. In this country certain polytechnics have earned themselves a better reputation than many equivalent university departments through a similar outlook.

● **When investing in any product of the new technology, investigate fully all the costs over its planned lifetime.** After all, hardware costs, the most visible, are only a fraction of the true costs. Because of rapid technological changes, the planned lifetime should be closer to 5 years rather than 10. Two examples of where this guideline is

flouted to the institution's ultimate detriment are the acquisition of older equipment at a bargain price, and the uncoordinated acquisition of low cost microcomputers. In the end it is usually a case of "cheap to buy, expensive to use".

● **Optimize different systems to different requirements.** Avoid the mistakes of many establishments where they try and make one central computer system do everything for everybody. In many universities, teaching systems are separated from administrative systems, and timesharing is separated from number crunching.

Centres of expertise and exchange of

experiences were encouraged. This company spends about £3,500 for a work-station, which in most cases is multifunctional, for example allowing transmission of memos as well as access to shared files.

Using these guidelines may not be straightforward since they impinge on some of the traditions of educational budgeting and departmental autonomy. However, they do recognize technological realities and the ingredients of successful establishments.

The corollary of the above guidelines is the recognition of information as an important resource. The fundamental role of a higher educational establishment is one of teaching and research. It is the task of educational planners and policy makers to optimize human resources, physical resources and financial resources to accomplish the goals of the establishment. Today, traditional establishments are being challenged by newer methods of achieving similar results with fewer resources. In-house training in industry and the Open University are good examples of this. In both situations the value of information is clearly recognized. It is no accident that the Open University is at the forefront of the application of microelectronic based products for teaching.

In fact, information is the life blood of teaching, research and administration. Its efficient handling and dissemination will be so critical to the effectiveness of the educational establishment in the next decade that the president of one leading American university has dubbed information the "fourth resource".

Since, in the future, the cheapest way to store information will be in electronic form rather than on paper, the successful educational establishment of tomorrow needs a good understanding of how to exploit microelectronic based information technology. In the electronic world of tomorrow we can envisage the "wired up" campus - data highways of coaxial cable forming a local area network, threading its way through laboratories and classrooms. Well socketed outlets will provide access for plugging in terminals, printers, file store, copiers, computers and many other devices. These local networks will in turn be connected to existing regional and international computer networks.

A researcher in Cambridge will be able to assess the most recent reports of his or her colleagues at a Californian university, from a microcomputer based desk terminal. This terminal will allow the preparation of documents and memos which can be typed and transmitted. It will also enable assessment of files, memos and diary wherever there is access to the network provided he or she has the necessary access privileges. Assessment of the library's data base to do a literature search on an item of interest will also be possible.

Students will be able to go to the graphics terminal to revise a lesson and take a test, at their own convenience. They can revise some concepts from their residence.

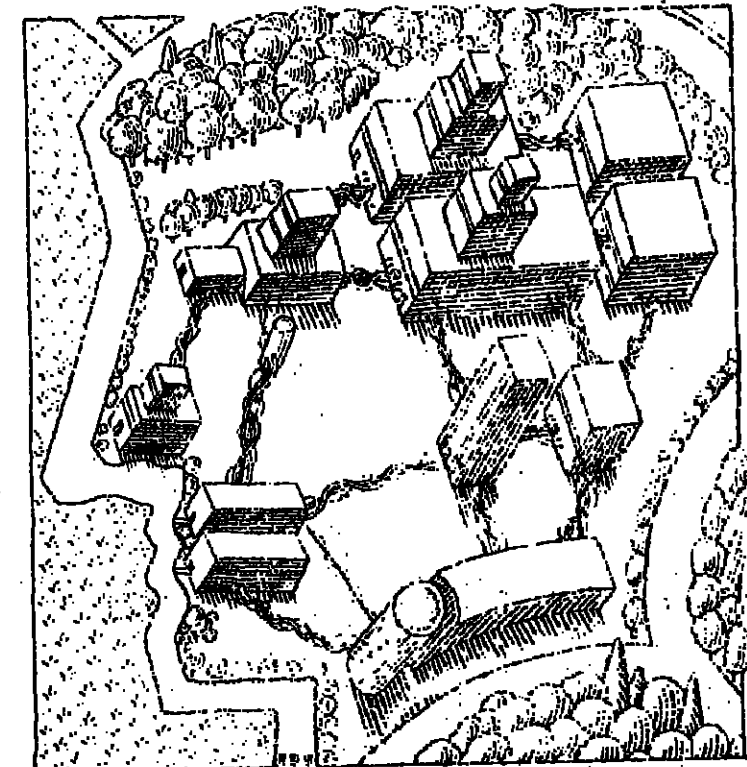
In fact, today's concept of the classroom, the office, the library, the mail room, the print shop will change dramatically as information starts being handled in significant quantities electronically.

Are we sure that this is not a pipe dream? Well all of the above examples are happening today for the privileged few. It will only happen on a wider scale where there is leadership to nurture such schemes from the experimental to the everyday.

Above all it requires planning and a realistic implementation plan. It does of course require money. But a lot of that money is today being spent throughout campus - on paper, office equipment, but above all in staff costs - staff who given the right tools could be much more productive.

Tomorrow's successful higher education establishments will need a new outlook towards information as a resource and a knowledge of what technology can and cannot do. And, of course, a determination to meet the challenges. In this article we have looked at some fundamental facts about microelectronics; examined trends in applications and user attitudes; presented some guidelines for implementation and given a glimpse at the electronic information based campus of the future. Through careful planning and sensible application of this knowledge, we can all face the microchip future with confidence.

The author is a specialist in educational computing systems.



BOOKS

Missing pieces in the bard's life and work

William Shakespeare: Records and Images
by S. Schoenbaum
Scolar Press, £38.00
ISBN 0 85967 625 0

The Textual History of King Lear
by P.W.K. Stone
Scolar Press, £27.50
ISBN 0 85967 536 X

Shakespeare Survey 33: King Lear
edited by Kenneth Muir
Cambridge University Press, £17.50
ISBN 0 521 23249 X

Shakespeare and the Solitary Man
by Janette Dillon
Macmillan, £15.00
ISBN 0 333 27468 7

Shakespeare's Images of Pregnancy
by Elizabeth Sacks
Macmillan, £12.00
ISBN 0 333 30004 1

by D.J. Palmer

To judge from these offerings, Shakespeare has just had another very good if rather expensive birthday.

In *William Shakespeare: Records and Images* Professor Schoenbaum provides a fitting sequel to his superb *Documentary Life* (1975). This handsome volume, like its predecessor, combines a wealth of primary source material in facsimile with a text in which learning is graced by style and wit. Some slight overlap between the two works is caused by the reproduction in their entirety of items, such as the depositions in the Belotti-Mountjoy suit and the entries in the Stationers' Register, from which extracts were included in *Life*. As a result, *Records and Images* is an independent and self-contained work, not merely a supplement. In addition to bringing together yet more ocular proof that Shakespeare was certainly Shakespeare and not, as Mark Twain once proposed, another man of the same name, *Records and Images* is concerned with several shadier characters who in one way or another are part of the story.

The first of these is Simon Forman, necromancer, physician and sexual athlete, who is represented here chiefly by his somewhat confused accounts of *Macbeth*, *Cymbeline* and *The Winter's Tale* as seen at the Globe in 1611, but who also, as we know from his notebooks, was consulted in his medical capacity by some of Shakespeare's associates including the Mountjoys and the printers William Jaggard and Richard Field, not to mention Emilia Lanier, Dr. Rowse's Dark Lady. From the Stratford records, three trouble-makers, William Bott, who as tenant of New Place made Shakespeare purchased it in 1597, seems to have crowned his local reputation for ill-doing by murdering his daughter there (according to the deposition of one Roland Wheler, published here for the first time); John Addenbrooke, who was successfully sued for debt by Shakespeare in 1608, but who absconded leaving his bondsmen to pay up; and William Combe, a local landholder who played a prominent role in an attempt to enclose land in which Shakespeare had some financial interest.

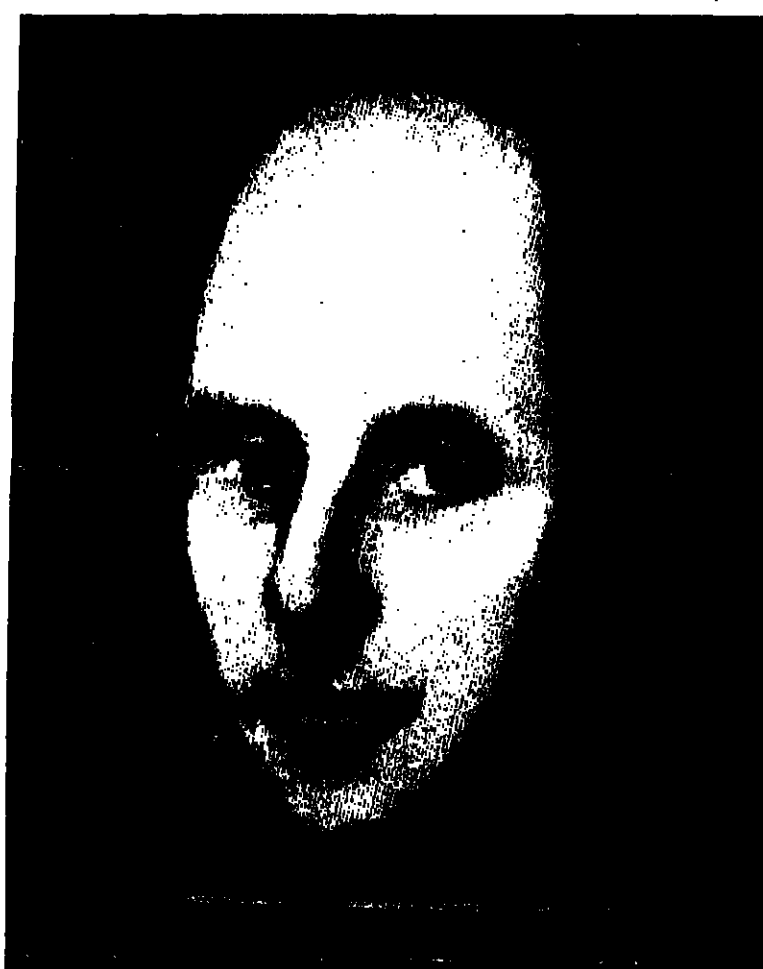
If the latter two episodes have sometimes been used to depict the poet of humanity as "a tight-fisted capitalist demanding his metaphorical pound of flesh", Professor Schoenbaum sets the record straight. While Shakespeare sued for the recovery of debts on two occasions only, " litigation in Shakespeare's Stratford, indeed in Elizabethan England generally, was an everyday pastime, indulged in largely because the legal system furnished no other convenient machinery, such as credit accounts or collection agencies." Edward Bond's *Dingo* is gently reformed for representing Shakespeare's apparent refusal to take sides in the enclosure controversy as a tacit endorsement of Combe's darker purpose. Much of the information about this late chap-

ter in Shakespeare's life is drawn, with Professor Schoenbaum's skilful commentary, from a diary kept by Thomas Greene, Shakespeare's cousin and Stratford's Town Clerk at the time. The reproduction of the eight pages of this manuscript is mostly illegible, but it can be followed with the assistance of the nineteenth-century transcript which Professor Schoenbaum has also disinterred.

Shakespeare's own handwriting and the problem of distinguishing his authentic signatures from later fakes is the subject of another chapter, leading on naturally to a highly entertaining account of the forgeries perpetrated by William-Henry Ireland at the end of the eighteenth century and John Payne Collier in the nineteenth. Ireland's short-lived but right happy and copious industry in producing letters, verses and even a whole play, all supposedly found in an old chest, has more than a touch of farce about it, as Professor Schoenbaum is not slow to appreciate. The deeper irony does not escape him either: that Ireland's compulsive need to win the approval of an unsympathetic father should have led to the surprisingly easy deception and then to the humiliating disgrace of Ireland senior. Collier, cuts the more dangerous figure, since his forgeries are cleverer and are compounded with genuine discoveries; modern scholarship has still to tread warily around his tracks. His motives for such misplaced ingenuity are obscure, and Professor Schoenbaum speculates briefly on Collier's overweening vanity before leaving him to the psycho-biographers. Whatever the personal pathology underlying these and other fabrications, they are also by-products of the rise of bardolatry and its attendant relic-hunting. So also are the various paintings alleged to be contemporary portraits of Shakespeare, here reproduced and discussed. Professor Schoenbaum points out how Romantic dissatisfaction with the "burgher-like stolidity" of the bust in Stratford's Holy Trinity Church has accompanied a preference for one or other of the various images thought more appropriate to an artistic genius. But in the end the stiff lineaments of the Dorothea engraving and the "self-satisfied pork-butcher" (as Dover Wilson described him) of the Janssen monument are probably as close as we can come to an authentic likeness.

The question of authenticity in the text of *King Lear* is currently a matter of renewed debate, to which P.W.K. Stone makes a substantial and highly provocative contribution, challenging not only recent orthodoxy concerning the bibliographical problems of this particular play but also the conservative, modern editorial attitudes towards emendation and the principle of choosing a "basic text". The prime difficulty about the text of *King Lear* is that it exists in two versions, the Quarto of 1608, a full but obviously mangled recension of the play, and the First Folio text of 1623, a much tidier version which lacks some three hundred lines found in the Quarto (including an entire scene) but contains about a hundred lines not in the Quarto. The problem is compounded by the fact that while the Folio text seems to correct some obvious errors in the Quarto it retains others, showing that the Folio is at least partly dependent on the Quarto. A second Quarto of 1619 (despite the date of 1608 on its title page) can be shown to be merely a regularized reprint of the first Quarto without independent authority. Most recent investigators of the problems involved have taken the view that the 1608 Quarto is based on some form of memorial reconstruction, "with or without reference to Shakespeare's rough draft, or ' foul papers '," while the Folio text is commonly held to be derived from a revision of the Quarto by reference to the prompt-copy, the "official" manuscript kept by the acting company.

It is fair to say that no complete theory of the textual history of *King*



The Felton portrait of Shakespeare reproduced from S. Schoenbaum's *William Shakespeare: Records and Images*, reviewed here. The author comments that if this is indeed Shakespeare, he had undergone a strange metamorphosis, and notes particularly the vast expanse of forehead; "those persuaded that a gigantic brain requires a gigantic casing will derive satisfaction from the Felton physiognomy".

Lear has won general acceptance. Mr Stone's complex and elaborate argument includes a detailed examination of the different kinds of variants and it defies summary. His conclusions, however, are that the copy for the Quarto was a longhand report taken down at several performances and that the Folio is largely based on a prompt-book, but one that was itself derived from a fresh collation of the Quarto with the original longhand manuscript before being freely revised by a competent but not very careful dramatist. Mr Stone believes that the original prompt-book was lost (a theory that has previously been proposed by some to account for the fire at the Globe in 1613, and that Shakespeare himself was not available to assist in preparing a replacement). In other words, the most startling proposition advanced by Mr Stone is that the Folio text has no independent authority, regardless of whether it is regarded as a "better" text as an edited and retouched version. Future editors of *King Lear* will have to contend with the strictly bibliographical nature of this thorough re-examination of the evidence, but Mr Stone also permits himself to disparage "the artistic merits of the additional material in the Folio and not everyone will endorse his judgment of the author who replaced the Quarto's 'O, O, O, O' with 'Do you see him? Look on her! Look, her lips! Look there! Look there!'".

King Lear is also the main theme of the latest issue of *Shakespeare Survey*. In tracing the course of critical interpretation during the last forty years, G.R. Hibbard observes that while the play "has taken on a peerless immediacy and urgency" our time, there is very little general agreement about its meaning. Between the opposite extremes of Christian optimism and existential despair, Hibbard notes the prevailing tendency to read the play in ideological terms. Perhaps this is why, as he says in an interview printed here, says that in preparing to interpret the role of Lear he consulted authorities except the Norton facsimile of the First Folio and the (thirteen volumes of the) Oxford English Dictionary. He also tells us that he is a great believer in cutting

the play, "by half if possible", and that in certain lines he devised his own punctuation, as in "Let me wipe it first. It smells. Of mortality". After all, as he says, "This is the wonderful thing about Shakespeare, isn't it? Open to so many different interpretations".

Mr Shiden is a bit of a tease. Nevertheless, sometimes a choice of interpretation has to be made, as Gary Taylor shows in his study of the incompatible versions of Quarto and Folio in their treatment of the war in the play. Mr Taylor shares Mr Stone's disaffection with "the traditional conflated text". On the other hand, one of the Folio lines that Mr Stone regards as a fatuous and superfluous interpolation, "And that's true too", Gloucester's response to Derek Fost no less than the epigraph to the entire play with its presentation of contrary possibilities at moments of dramatic crisis. Another pattern in the play, the overturning of dramatic conventions, audience expectations and characters' hopes, is traced by James Black. "Limited space prevents an adequate appreciation of these and other items in the volume, which range from Alan Sinfield's discussion of stoicism and Calvinism in *Hamlet* and two essays on *Antony and Cleopatra* by Andrew Fichter and Susan Snyder respectively to articles on the building of the Fortune and the Globe and on Elizabethan actors abroad. As usual, this issue concludes with the annual reports on recent productions, criticism and scholarship, an invaluable asset in the ever-burgeoning world of Shakespeare studies. That world stands deeply indebted to Kenneth Muir as he retires from the editorship after his fifteenth volume.

Shakespeare and the Solitary Man groups a number of the plays and the sonnets in a fresh and interesting perspective: attitudes to solitariness and the self in late sixteenth-century England. Dr Dillon maintains that just at this time the "traditional medieval ethos, which exalted the principle of mutual obligation above the self-interest and the importance of the individual, of self-determined values and

the pleasures of being by oneself. She documents this transition with a wide range of reference to both social and literary manifestations of the new cult and different reactions to it. Solitariness, the term by which Dr Dillon chooses to denote this innovation, is something of a portmanteau word for kinds of self-assertion and self-absorption that might not seem immediately related to each other, as she admits.

It can suggest the country life, the contemplative life, the melancholy humour, the refusal of public office, the studious disposition. It can be classified, as it is by contemporaries, as relating to time, place or the mind. It can be voluntary or involuntary, and thereby associated with either freedom or imprisonment. It can be an expression of self-love, love of the community, or love of God. The flexibility of its semantic range is symptomatic of the uncertainty surrounding attitudes to it in this period.

Although there is surely some exaggeration in the claim that "Elizabethan drama, whatever its genre, is based on the opposition between the social and the solitary principles" (one can identify many other basic oppositions), the frame of reference established by Dr Dillon enables her to chart through a selected sequence of his works Shakespeare's engagement with the moral implications of solitariness.

Beginning with *Richard III* ("an myself alone") and its "essentially medieval perspective" on the relative merits of individual will and social good, the argument fluidly takes us through *Richard II*, the sonnets, the melancholy Jacques and the even more melancholy Hamlet, demonstrating an increasingly sympathetic presentation of the solitary and divided self, qualified however by a critical awareness of the isolation, narcissism and lack of public commitment which attend the condition. Preoccupation with self, it seems, can be ambivalently both a preservation of personal integrity and an affliction, a playing with assumed reality in this respect. Dr Dillon draws attention to the use of mirror imagery in these works: "the verisimilitude of the mirror as an image for different qualities in the self mimics the very reality and fickleness of the self: all its qualities, its smoothness, its superficiality, its facility, its brilliancy, are exploited." But she finds that it is the later tragedies Shakespeare reverts to a more conservative emphasis upon the social identity of man, beginning with *King Lear*, in which the solitaires and outcasts redouble through their inner suffering their bonds of sympathy, and mutual dependence to which the play gives its fullest allegiance. *Macbeth*, *Coriolanus* and *Timon*, who deliberately sever their ties with society, exemplify the moral that "the only movement for the solitary is towards death". Despite her tendency to make didactic capital out of the plays, Dr Dillon's approach is certainly profitable in its insights, insights and fertile in its thinking about one aspect of Shakespeare's relationship to his cultural climate.

Fertility in the twin senses of natural and artistic generation is the theme of Elizabeth Sacks's book, which itself is perhaps emblematic of pregnancy in the distended proportions of its rather region, where notes and select bibliography bulk nearly half as large in volume as the main text. Even so, Dr Sacks finds sufficient space in her opening chapter for a rather repetitive catalogue of some thirty examples of what is all a familiar Renaissance metaphor for literary labour, whether or not "a syndrome which we may call 'male womb-worship'". Accounts for the popularity of this metaphor, in which the womblike, cavernous nature of Shakespeare's theatre, One instance of her wayward literary with the text occurs in the interpretation of Mercurio's not unduly obscure reference to Queen Mab, the fairies' midwife. "That plucks the manes of horses in the night", a perverse ingenuously prompts Dr Sacks into offering the following gloss: "The horsehair which she so

asiduously plucks is, of course, human female pubic hair, a reading easily justified by recalling the Renaissance slang of 'jade' for prostitute. 'Dossel' she 'knows' or 'carries' where the mane of a horse is regarded as its sex? Of *Measure for Measure*, she asserts with a privileged gynaecological insight not permitted to the rest of us that "by the end of the play, we may safely assume, Mariana is pregnant and Isabella may shortly become pregnant". Has anyone ever previously connected the Porter in *Macbeth* with child-bearing? It occurs to Dr Sacks that "port" in the sense of carry or "bear" is significant and relevant "things have been strangely borne". Indeed, Sacks has an unbridled response to the texts invites one to detect an innuendo in her declaration that "in order to understand the full implications of his drama, on critical tool should be ignored, and no textual stone left unturned". No wonder that the image of Shakespeare on the dust-cover of this book wears a cryptic smile.

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The King's laws

Subjects and Sovereigns: the Grand Controversy over legal sovereignty in Stuart England
by C. C. Weston and J. R. Greenberg
Cambridge University Press, £24.00
ISBN 0 521 23272 4

At a time when historians of Stuart politics are steadily depicting a world dominated by court intrigue and factional rivalry, it is salutary that the authors of *Subjects and Sovereigns* should turn our attention to political ideas and constitutional issues. And it is refreshing that they should bring to their subject boldness of argument and clarity of exposition.

Prior to 1642, Weston and Greenberg maintain, the world of contemporary political thought was a world of order in which the king (reflecting the rule of God) was superior to all and endorsed with ultimate power for the welfare of the commonwealth. Laws were the king's laws; he enjoyed the right to suspend and dispense from them in the name of the common good. After 1642, as the question of who made law became paramount, this "order theory" of government was steadily replaced by a rival ideology—by claims that legal sovereignty should be (and had been) shared, and by a belief in the community as the origin of political authority.

Ironically the spring of this change was the king himself—or rather the "Answer to the Nineteen Propositions" issued in Charles I's name. For there Charles described a government in which the king, lords and commons, each having its distinctive powers, shared in the making of laws. This implied "co-ordination principle" of legislation was quickly taken up by pamphleteers on behalf of a Parliament which had hitherto lacked an ideological base for its opposition. Charles Herle, Philip Hunton and William Pryne argued not only for legislative authority in the three estates of king, lords and commons, but also for the origin of human authority in the people. The royalists quickly saw their mistake and in their pamphlets of the 1640s ascribed to the two houses a subordinate role in law-making. As John Spelman put it succinctly in 1644, "The sovereignty (and with it the inseparable legislative power) doth solely reside in the king".

But for all the efforts of royalist polemicists, the "co-ordination principle" did not die. Indeed though the monarch was restored in 1660, the Convention decreed, in language reminiscent of that principle, "the government is and ought to be by king, lords and commons". After 1660 (so the argument runs) the king was held to have but a share in law-making. Hence the dispensing power, formerly uncontested, became the focus of con-

tinued on facing page

troversy. Those who challenged it won and "by the end of Charles II's reign a substantial majority of the political nation had abandoned the order theory of kingship for the community-centred view of government". 1689 saw the death knell of the old ideas. The "Grand Controversy" had been resolved.

In developing their thesis Professors Weston and Greenberg valuably discuss complicated legal issues and rival theories of English history within the context of the debate about sovereignty. In its outlines the central argument—for a major shift in ideas—is convincing. Less satisfactory is their attempt (though commendably attempted) to relate those ideas to political circumstances and to political change. And this leads ultimately to some misjudgments and an exaggeration of the significance of political debate. For the period after the Civil War, the assumption is made that (in contrast to the early seventeenth century) legislative supremacy was equivalent to sovereignty. Yet it is not clear that most contemporaries, even after 1642, made this identification; we are told of some royalist writers, like Charles Dallison, who did not. It is not enough to call those who saw the importance of legislative sovereignty "modern minded" unless it is made clear how and when attention was shifted to legislation as the centre of government.

It is difficult, too, to accept the view that there was such a dramatic change after 1660. The Charles I described here as a king limited by coordination theory to a share in legislation (and incidentally bound by statute to call Parliament triennially) nevertheless ruled from 1681 to 1685 in defiance of the constitution. And did so with impunity. The row over the dispensing power in 1672 and in 1673–74 surely less a quarrel about the issue of legal sovereignty per se than a dislike of the ends for which that power was being exercised. When Sancroft abandoned James II in 1688 he was not (primarily) a convert to the "community-centred ideology"; rather he sought to defend the Anglican Church now assailed by a king whom he had expected to uphold it. To see ideas, in the main, the determinants of change (as the book's title implies) is to view the political world as an image in a mirror. As the case of Pryne (well discussed here) shows so clearly, political circumstances dictated attitudes more than ideas determined events. If by the end of the Stuart century the "Grand Controversy" was resolved, the change owed more to the political developments of William's reign, than to the legacy of political debate in the 1640s.

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from facing page

BOOKS

The Justice and the Mare's Ale: law and disorder in seventeenth-century England
by Alan Macfarlane
Blackwell, £8.50
ISBN 0 631 12681 3

Like Peter Laslett before him, Alan Macfarlane in his latest book on crime and justice is out to rediscover a world we have lost. More accurately, it is a world obscured by what he considers to have been the intrusive preoccupations of nineteenth-century historians and by the nature of the surviving evidence. Both obstacles to our understanding are discussed at some length in Macfarlane's interestingly literary, graphical and methodological introduction.

On the historiographical side, two of the greatest of nineteenth-century historians—Stubbs and Maitland—are taken to task for the way in which they allowed their overriding concern with the continuity of law and institutions to control their perception of the past. Exploring the treasure of the Public Record Office rather than local records, they were struck less by the violence and brutality and strangeness of the past than by the enormous order, centralization and continuity between past and present.

Earlier historians such as Hume and Macaulay, on the other hand, had clearer insights – or so Macfarlane seems to claim – into the strange, remote, uncivilized and turbulent habits of earlier centuries. And turning to the sources, Macfarlane reminds us repeatedly that they simply do not tell us all that we would like to know about past criminality. In the official records crime and violence are almost invariably under-recorded. To come to terms with crime and violence as social – and not merely legal – phenomena the historian must get below the surface of the official records of the courts.

Macfarlane does just that. If his evidence had consisted only of the tantalizingly brief official Assize records then his book could simply count not have been written at all. As it is, however, he has done his homework enough to stumble upon a rich repository of papers assembled by an indefatigable Cumberland JP, Sir Daniel Fleming. The bulk of Macfarlane's book relies heavily on Fleming's painstaking investigations in the early 1680s of the criminal activities of an enterprising gang of counterfeiters, burglars and robbers whom he was determined to bring to justice. The depositions of witnesses, victims and the accused are quoted extensively as are Fleming's correspondence and notebooks. Macfarlane is, however, careful to remind us of the special – perhaps unique – documentation he is using and of the consequent need to resist hasty generalization on its basis.

Generalization there is, however, and perhaps not as carefully considered as it might have been, in the conclusion. Here Macfarlane, whose earlier anthropological comparisons of witchcraft evidence are already well known to historians, extends his discussion by placing the Cumberland experience documented in his book alongside that of other "peasant" societies. Seventeenth-century China, eighteenth and nineteenth-century France and nineteenth and early twentieth-century Sicily are the chosen analogies, and violence, feuding and banditry emerge as common denominators. The English evidence, however, points in other directions. Violence was not endemic in seventeenth-century Cumberland, nor were family feuding and banditry. Macfarlane does not convincingly explain why, though he points to the nature and ubiquity of the law and to the absence of profound social tensions and peasant mentality. Perhaps Macaulay is a less reliable guide to the turbulence of the seventeenth century than Macfarlane's introduction seems to suggest, and perhaps Maitland was not so far off the mark after all?

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Persistent patriotism

Pitt and Popularity
by Marie Peters
Clarendon Press: Oxford University Press, £17.50
ISBN 0 19 822498 2

The contemporaries of William Pitt the Elder claimed that he owed his political strength to his popularity and his popularity to his patriotism in general and to the fact that he remained a patriot in office as well as in opposition. Such a claim runs counter to the notions of those modern historians who believe that eighteenth-century politics was nothing more than the exploitation of patronage and the pursuit of self-interest and that political influence was restricted to a narrow aristocratic oligarchy.

Dr Marie Peters, while not fully accepting the claims of Pitt's contemporaries, maintains that William Pitt was unique among eighteenth-century politicians in his "popularity". She emphasizes that his political actions and his political fortunes were shaped to a considerable extent by the power of public opinion. Her thesis is founded on a profound knowledge of the London press and of the organized opinion of the merchants of London during the years between 1745 and 1762.

Dr Peters acknowledges that Pitt could not have achieved political success if he had not been able to dominate lesser politicians and if he had not achieved major victories in the Seven Years War, but she also insists that public opinion helped him over the major obstacles in his path to high office. Many historians accept this much, but they have claimed that Pitt, once he was safely in power, abandoned his former patriotic stance and behaved just like any other successful eighteenth-century minister. Dr Peters endeavours to prove that this was not the case.

H. T. Dickinson

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To sustain her thesis Dr Peters makes a detailed study of the London press in order to discover those policies which were favoured by public opinion and she provides a close scrutiny of Pitt's political behaviour in order to show how frequently he responded to pressure from this opinion out-of-doors. By these means she is able to demonstrate that Pitt's recognition of the importance of public opinion led him to oppose his ministerial colleagues on some issues and to adopt wasteful and ineffective military measures on other occasions simply in order to please his supporters out-of-doors. She also shows how Pitt disguised some of his shifts in policy so as not to alienate his allies and how he worked hard in order to persuade the public to accept measures which he and they had formerly opposed but which he now regarded as essential. Whereas other ministers distributed patronage as a means to power, Pitt was under constant pressure to create an image of himself in the public imagination as the honest and patriotic defender of the true interests of the nation.

In a book which is undoubtedly a substantial work of scholarship Dr Peters has clearly established the complex political relationship between public opinion and the fortunes of the Elder Pitt. Unfortunately, she does not always dominate her material with complete success. Her blow-by-blow account of the political campaign in the press is at times repetitious and she occasionally buries her central argument that Pitt was continually striving to convince public opinion that he was not in fact abandoning his political principles.

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Animal Learning and Conditioning
by Graham Davey
Macmillan, £20.00 and £10.00
ISBN 0 333 217 29 2 and 30 6
Contemporary Animal Learning
Theory
by Anthony Dickinson
Cambridge University Press, £12.50
and £3.95
ISBN 0 521 23469 7 and 29962 4

Few would deny that the study of conditioning and learning in animals has had a major impact on the development of psychology over the past 50 years, although some would dispute that the influence has been for the good. For many people, animal learning studies are inextricably bound up with the 1940s and 1950s "neo-behaviourism" of Hull, Guthrie and others, an approach now in decline, and the "radical behaviourism" of the Skinnerian school.

Radical behaviourism continues to attract both passionate support and vehement criticism, much of the latter coming from those committed to more cognitive approaches to learning. The essence of the debate is that the behaviourist treats learning as the development of new behaviour patterns whereas the cognitivist regards learning as the formation of new mental structures which may or may not be linked to changes in overt behaviour.

In their different ways, these two new books chart some important aspects of the continuing development of animal learning studies and the debate associated with them. Davey's book is a comprehensive introduction to conditioning and learning which successfully covers a remarkably wide area. Besides the expected chapters on methods and theories relating to the study of simple associative learning (classical and operant conditioning), aversive control, discrimination, and constraints on learning, are set other topics not always covered in such texts, including perceptual learning and imprinting, imitation and observational learning, animal memory, and problem-solving and animal "language learning".

Despite this catholicism, the quality of the material is uniformly high and the approach generally pragmatic and unbiased, although the author's interests and predilections do show through in the sections on conditioning and

its ramifications come across with the greatest authority. These include chapters devoted to human operant performance, behaviour modification, and the implications and ethics of human "behavioural engineering" (the human animal is by no means neglected and one hopes that the book's title will not lead to its being passed over by those to whom animal studies are an anathema).

Davey is at his best, in fact, when acting as an advocate and apologist for behaviourism. Those sceptical of the value of this approach should read this text, especially the final chapter, a short but sensible evaluation of radical behaviourism as applied to human behaviour. One of the crucial points highlighted here is that radical behaviourists are concerned primarily with specifying the controlling relationships between environment and behaviour and are content to leave, for the present, elaboration of the mechanisms underlying these relationships.

For example, it is sometimes possible to change human behaviour by manipulating its consequences (the technique of "operant conditioning") without necessarily considering the nature of the internal processes (which may involve cognitive aspects) associated with the change. Whether or not it is actually sensible to ignore these processes is of course one of the major points of dispute between behaviourists and their cognitive critics.

Dickinson aligns himself very clearly with the critics and has written a little book which makes no pretence at being anything other than a proselytism of a cognitivist view of animal learning. There is a touch of irony in the fact that Davey devotes considerable space to behaviourist approaches to human learning, when ignoring cognitive processes is most problematic, while Dickinson's book is concerned solely with animal learning but rejects behaviourism, which grew largely out of animal studies, in favour of the cognitive approach.

Dickinson's thesis is not simply that animals are capable of learning that an event, be it a stimulus or some aspect of their own behaviour, can lead to the occurrence of another event (for example, that food is consequent on a signal as in classical conditioning or on responding in some particular way as in operant conditioning), but that learning involves the setting up of internal representations of such event relationships.

P. A. Russell

P. A. Russell is lecturer in psychology at the University of Aberdeen.

Making the world a better place

The Development of Social Psychology
edited by Robin Gilmour and Steve Duck
Academic Press, £19.60 and £8.40
ISBN 0 12 284 080 1 and 082 8

The Making of Social Psychology: discussions with creative contributors by Richard I. Evans
Gardner Press/Wiley, £14.20 and £7.05
ISBN 0 470 268 11 5 and 12 3

There are problems with social psychology in tracing its past, defining its boundaries and organizing its subject-matter. Hence, most attempts to write its history or to define its nature as a scientific enterprise are likely to be highly selective and partial. One historical root of social psychology can be traced through from Greek to modern philosophy. In ethics and social philosophy, for example, the study of animal social behaviour in relation to human evolution, constitutes another historical root which feeds current interest in emotions, expression, communication and altruism. A third root runs through the literature on cultural anthropology with its emphasis on social organization, ritual and socialization.

Mainstream social psychology on both sides of the Atlantic, however, has had a much narrower focus and a shorter historical perspective. Textbooks on social psychology typically refer back to 1920s onwards, such as that of O. H. Maud on socialization and com-

munication, of Sherif on social norms, of Allport and Thurstone on attitudes of Kurt Lewin on small groups, and of Bruner and Goodman on social perception. Until recently the touchstones of social psychology have been measurement and experimental control. However, the apparent lack of systematic, cumulative achievement after 50 or more years of effort has given rise, in recent years, to a number of attempts to find new directions, to reconstruct the subject, and to deal with the so-called crisis.

Social psychology as described in both of these new books seems to have grown in a rather ad hoc way out of sorts of social behaviour, rather than in response to major social issues or in response to political and economic ideas. With the benefit of hindsight, perhaps, the contributing authors give greater emphasis to naturalistic and quasi-experimental methods than to traditional experimental and laboratory methods. Most see themselves as applied social psychologists helping to make the world a better place. Some are interested in studying morals and values. Few, however, are concerned with the conceptual and philosophical basis of social psychology, or with other social sciences.

Social psychology would perhaps have prospered better if disciplines like social history, law, economics, politics, sociology, anthropology and medicine had themselves reached towards a psychological and behavioural analysis of the issues with which they deal. The resulting convergence and overlap in concepts,

continued on facing page

THE TIMES HIGHER EDUCATION SUPPLEMENT 24.4.81

BOOKS

Defining infant development

Made for Life: coping, competence and cognition
by Johanna Turner
Methuen, £8.00 and £3.95
ISBN 0 416 72609 9 and 72700 X

The Ecology of Preschool Behaviour
by Peter Smith and Kevin J. Connolly
Cambridge University Press, £25.00
ISBN 0 521 22331 8

It is well to bear in mind that the distinction between wisdom and knowledge is elusive, humanistic, pragmatic and discursive: anything that lends intelligibility is grist to the mill. On the other hand those writers who see themselves as doing mainstream science - though with wayward material - would say that increasing the intelligibility of the development process is a necessary but not a sufficient condition: data must be as uninterpreted as possible and the competition between hypotheses emphasized. These books illustrated the two extremes.

Johanna Turner's short book is designed not as a comparative review of the literature on preschool cognitive and affective development but as a broad-minded inventory of the "influences" which various psychologists have claimed the preschool years to carry. Her theme is an important one: the preschooler's sense of competence and efficacy which affects his or her success in school and thus in later life.

As a pocket inventory the book is thoroughly researched and useful. But as the presentation of a case about the crucial experiences and relationships which determine the child's capacity to cope the book falls foul of its own eclecticism. A wide range of approaches and many studies are described, but, despite some adventurous analogy-making, nothing seems to cohere towards a conclusion at any point. There are conclusions in the book but they are frequently either speculative gestures or homilies, many of which could have been made without the aid of the material reviewed.

The true weakness of the "wisdom approach" to developmental psychology is illustrated in Turner's uncritical citations of psychoanalytical theorists. We are told, for example, about Guntrip who says that the child comes to feel that his mother regards him as a "ruthless destroyer" because "she cannot tolerate the natural, healthy vigour his love needs"; and we are

shown Huan's table on the "taxonomy" of ego processes as well as his equally imaginative table on the "properties" of ego processes.

We are told about Melanie Klein who believed that ego-development begins once the infant can regard its mother's breast both as "good" (satisfying) and "bad" (persecutory). How confused must be the children of the I-Kung tribeswomen (as described in chapter one) who are not just breast-fed for up to three years but encouraged to play with the mother's breasts, which are "long and flexible" in addition to being both good and bad.

Perhaps the obvious resort to such jibes is that rigorous experimentation in developmental psychology may be equally as bizarre. One is reminded of "Dr Aura" in Nabokov's satire, who applied "to ten thousand elementary school pupils the so-called Fingerhohl Test, in which the child is asked to dip his index finger in cups of coloured fluids, whereupon the proportion between length of digit and wetted portion is measured and plotted in all kinds of fascinating graphs".

Thankfully, Smith and Connolly resist such a temptation to go for the analytical rather than the intrinsically significant. Their topic is the way in which the spontaneous behaviour of the preschool child is affected by varying the elements in an environment (the play group): elements such as number of companions, floor space, type and quality of toys, staff to child ratio, and the degree to which staff instruct the child in what to do.

Such work is very difficult; and partly for this reason, observational studies of this kind are only now returning to popularity after their decline in the 1940s. The difficulty arises not only from the fact that the work must be labour-intensive and can be tedious; rather, the main problems are procedural ones centering on the basic difficulty, found in all research in which the environment is the causal variable, of isolating the various elements of this variable. For example, it would seem to be an easy matter to observe how preschool play is affected by increasing the number of playmates. But in doing this we are also restricting space and the availability of play materials - in which case space and number of toys must also be increased - in which case we are no longer studying the number variable alone.

In an introductory chapter the authors carefully illustrate this

continued from facing page

examined theory as well as methods and applications. The chapters seem to have been pre-constructed for comment and revision, and there is little variation in quality, which is high, or in length or style. To use the contributors' own arguments, readers will read the book in different ways, from different perspectives, with different aims, and so on; so perhaps no general conclusion as to its merit is possible.

One major theme is the suggestion that a shift of emphasis from a behaviourist/experimental approach to a more experiential/naturalistic approach will bring social psychology into closer touch with the phenomena it claims to deal with and bring about more effective practical applications. The claims of the applied social psychologists, however, are modest, even self-deprecatory. Several contributors carry out demolition work on theories and methods, some of it large-scale, some small, or suggest that many ideas and practices will simply fall into disuse and disappear.

On the whole the book is easy to read, interesting and informative. One fault, perhaps, is the treatment of social psychology as a special case, as if it were among the social and behavioural sciences, faced conceptually, methodologically and practically with the same problems as the other sciences. At one point the book becomes completely inward-looking and we have a "social psychology of social psychology" that verges on pronouncing the whole enterprise impos-

sible and infinitely regressive. Obviously social psychologists need to learn to get along with approximations to the truth and to learn from the successes of other social sciences.

Evans has aimed at introducing the reader to the major ideas and points of view of 18 social psychologists. His book is the twelfth in a series of similar contributions to the history of social psychology. The text consists of the revised and edited transcripts of conversations with the author.

In the earlier chapters, too many diverse topics are discussed rather briefly and superficially. Gradually, however, this impression fades and one gets caught up in accounts of the circumstances, events, people and ideas in twentieth-century America that have helped to make modern social psychology. There are, of course, many omissions, and British social psychology is conspicuous by its absence; but no one is likely to question that the people interviewed are major figures in social psychology's short history.

The author uses a standard procedure: he asks each contributor to describe the origins of his interest in social psychology; he then goes on to discuss (also, all too briefly in most instances) their major contributions; finally, he elicits their reactions to criticisms of their work. The major common themes are authoritarianism, social attitudes and values, motivation, methodology, and groups; but a great variety of minor topics is dealt with.

James Russell

James Russell is lecturer in psychology at the University of Liverpool.

Cambridge University Press have published a collection of essays in social psychology, entitled *Human Groups and Social Categories*, by Henri Tajfel, at £25 and £7.95. The book brings together much of Professor Tajfel's previously published work on various aspects of intergroup behaviour: the social context of attitudes and ideologies, the origins and functions of social stereotypes, the development of national and ethnic identities, the nature of prejudice and the psychology of minority groups.

The contributors come across as rather modest, well-meaning individuals who are reasonably sceptical about social research methodology, and its findings. One could hardly call the making of social psychology, by this account, a success story. To quote Donald Campbell: "... doing science is tremendously wasteful, and if we're going to undertake it we've got to be willing to pour ten years of work down a rat hole every now and then" (page 77).

At the end of the book one comes away with a fairly clear idea of the history of mainstream social psychology as seen through the eyes of the author and his contributors. Only a few of them have stayed within one main field of endeavour, so one's impression that social psychology is a diffuse subject with indefinite boundaries is reinforced.

The book is likely to suit only those undergraduate students who have a special interest in social psychology or have had the benefit of one or more courses in that area. It is, on the other hand, interesting as a sort of "refresher course" for psychologists who would like to keep up with their social psychology and who want to know where social psychology was in the mid-1970s, and how it got there.

D. B. Bromley

D. B. Bromley is professor of psychology at the University of Liverpool.

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Psychologists in the dock

Psychology in Legal Contexts: applications and limitations

edited by Sally M. A. Lloyd-Bostock

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ISBN 0 333 27275 7

Forensic Psychology

by L. R. C. Hayward

Batsford, £15.00

ISBN 0 7134 2475 3

Psychology is a new discipline, the law is a very old one. Both are concerned with the structure of human society, and to some extent the modification of human behaviour. Law and psychology ought therefore to be natural bedfellows, but each is hesitating about embracing the other. Nevertheless, there are signs that some of the hostility is being superseded by a mutual curiosity.

In the United States psychologists are sometimes invited to give advice about, even intervene in the management of, organizations such as prisons, which come into conflict with the law from time to time. This is related to a clear understanding that psychology is not simply a technical adjunct to psychiatry, and that it need not be exclusively concerned with the problems of individuals. Such self-confidence has not yet reached this side of the Atlantic, but *Psychology in Legal Contexts* is an illustration of an encouraging growth of mutual interest between law and psychology here in Britain.

The book is a collection of papers given at a three-day conference on law and psychology in Oxford in 1978. This conference was the first meeting of the SSRC Law and Psychology Seminar Group set up specially for academic discussions between lawyers and psychologists.

The topics covered ranged over reliability of witness evidence, the use of voice identification, problems of interrogation and confession, the legal issues faced by psychologists in court, and papers on gambling and traffic offences. Two interesting miscellaneous papers are one on legal jargon another giving some personal well

argued suggestions for sex law reform by the psychologist/psychiatrist Donald West. All of the contributions were concerned with the psychology of the individual in one guise or another.

Judge Brian Clapham makes a central point for the whole conference when he says: "the legal profession is not aware of the extent to which... expert evidence is available, nor of how it could help their clients. It is for psychologists, as a profession, to remedy this by informing solicitors and the Bar. Articles in legal and other journals are one obvious way of doing this."

Quite appropriately, however, it is the psychologists at the meeting who caution against excessive zeal in the pursuit of collaboration between psychology and law. Patrick Rabbitt points out that psychologists will have to adapt their experimental methods if they are to make useful contributions to legal problems; group techniques are not appropriate for individual problems.

Michael King warns strenuously against the well-intentioned but fallacious use of psychology to usurp the function of law. He chooses a good example, the giving of expert testimony in divorce courts about the best interests of the children involved: "lawyers should assume that psychologists and psychiatrists are no better qualified than they to determine... which of the competing adults should have care of the child". King suggests that more useful roles for "child experts" are eliciting child opinions and counselling children, parents and teachers.

The knotty problem of the hearsay rule which may inhibit the introduction of some psychological experimental evidence into the trial phase of a criminal hearing is dealt with only by Clapham and then briefly. Lionel Hayward deals with it in much greater detail in his book *Forensic Psychology*.

Professor Hayward has made a very substantial and personal contribution to the role of the psychologist in the court process. His text is therefore bound to be read with great expectation but may be received with some disappointment. Although he is a

champion of individual experimentation to illuminate difficult problems, his book is curiously devoid of evidence and much interesting material is bogged down in irrelevances and trivia. The very word "forensic" seems to hold the author in awe as though its use one becomes part of a special, almost mystical, group of beings who stalk the pages of detective novels.

"Forensic" psychologists have shoulders and read "forensic" history, but woe betide any upstart nurses or porters who wish to play this game. We are told minute details about the interior of a court, including the number of chairs in the dock and when to leave one's coat, together with advice about not taking one's umbrella as it is likely to be stolen from the cloakroom of the Old Bailey and replaced with a similar one with three broken ribs!

Nevertheless, the text does contain some interesting case illustrations, even if some of them are left inconclusively hanging in the air, and a useful account of the intricacies of the legal process and its rules. It is hoped that the embryo "forensic" psychologist will not take too seriously the advice to use the presumption of continuance as a trick to fool the opposition, nor the suggestions that psychologists should write notes in code or in Latin to prevent others understanding them, and should never discuss a case by telephone to prevent another witness jangling down the content of the conversation.

Both these books will fade into the background as the collaboration between psychology and law goes on. Each in its own way is part of the process by which a dialogue between the two professions can take place. Each is therefore contributing to an increase in the sophistication of our society to cope with complicated human problems.

John Guin

John Guin is professor of forensic psychiatry at the Institute of Psychiatry, University of London.

Piaget meets Chomsky

Language and Learning: the debate between Jean Piaget and Noam Chomsky

edited by Massimo Piattelli-Palmarini

Routledge & Kegan Paul, £9.75

ISBN 0 7100 0438 9

In providing an account of the debate between Noam Chomsky and Jean Piaget held in October 1975 at the Abbaye de Royaumont near Paris, this book is essential reading for any serious student of the history of ideas, language, developmental psychology or philosophy, and recommended reading for anyone with a passing interest in any of these.

Chomsky and Piaget are the leaders of two of the most influential schools of thought in contemporary cognitive studies. Their debate focused on the way language is acquired by the child, and the book shows clearly the distinction between Piaget's constructivism and Chomsky's innateness. By the former account the infant arrives in the world equipped only with his intelligence. Language, like other knowledge of the world, is then learned through the interaction of the child with his environment. Chomsky, on the other hand, argues that human language is a "mental organ" whose function unfolds like any other organ. The child needs a language environment so that it can learn a specific language, but Chomsky claims, languages have an underlying structure of such complexity that they would be impossible to learn if we did not possess an innate mechanism which was keyed to these structures.

Inevitably the debate ranged over a wide set of related issues, and the way in which the confrontation was organized helped in this. In addition to the protagonists there was an illustrious collection of biologists, philosophers, mathematicians and behavioural scientists who joined in the debate with

guesso. Discussions of this kind are usually impossible to read, but one of the shining virtues of this book is the way in which the dialogue has been tidied and re-organized so that the themes of the debate, which lasted four days, are maintained, without losing the excitement of the argument.

This care, by the editor, finds its way into the organization of the book. It starts with a foreword by Howard Gardner who gives a clear, non-technical synopsis of the debate together with an appreciation of the intellectual skills of Chomsky and Piaget. This is followed by an introduction by Piattelli-Palmarini in which he places the programmes of Chomsky and Piaget in the wider context of analogous programmes in the natural sciences. These two pieces, together with a succinct account by Jacques Mehler of the impact of Chomsky and Piaget on psycholinguistics and developmental psychology, form an excellent framework within which the debate can be appreciated.

The debate itself starts with two position papers which had been pre-circulated to the participants, a statement by Piaget and a reply by Chomsky. We then move to the debate proper, divided into thematic chapters which are introduced and linked by sensitive editorial comment. The disagreements are often profound, with the other participants often taking up more extreme positions than Piaget and Chomsky. For example, there is a clear statement by Jerry Fodor of his view that all ideas are fundamentally innate; that concepts cannot be learned; the development of more complex notions, by this account, is simply a function of maturation.

The debate does have the qualities of debate: the participants, though brilliant, remain human. In one overview Stephen Yalowich comments: "both writers seem to me to play fast and

loose with the available evidence". In an extended discussion of the whole proceedings Hilary Putnam starts by saying of Chomsky and Piaget that "neither has good arguments, but there is almost certainly something to what each one says". It certainly seemed the case that none of the participants changed their beliefs in the course of the meeting.

The debate concentrated on linguistic, philosophical and biological arguments. One theory which was missing was a psychological theory of the processes of change. This reflects the preoccupation of the main protagonists, Chomsky gives us a starting point, the innate structures, and a finishing place, the adult grammar, but gives no sense of what happens in between. Piaget gives us stages which seem locked to the laboratory and the adult notions of the world. His programme seems to me to defy (or at least canonize) an average, ignore the individual and to skate over the problem of change itself.

We still have no framework within which we can begin to account for the normal development of the individual and show how and why differential experience can lead to particular patterns of development. Even more obviously, in either programme, is a notion as to how one might judge development to be abnormal, or distinguish between abnormality and organically induced abnormalities. Even further away is the possibility of designing a programme of remediation for specific learning deficits, based on sound theoretical principles. This is the kind of thing we need from the science of learning.

Chomsky-Piaget debate, however, indicates how the ground should be cleared.

John Morley

John Morley is a member of the scientific staff of the MRC Applied Psychology Unit, Cambridge.

Autistic handicaps

Emerging Language in Autistic Children

by Warren H. Fay and Adriana Luce

Schuler

Edward Arnold, £10.50

ISBN 0 7131 6329 1

Autistic children are characterized by their poor social contact, their abnormalities in development of both verbal and non-verbal language, their extremely rigid thought patterns as evidenced by their desire to maintain sameness and their ritualistic and stereotyped behaviours, and by an onset of these symptoms before 30 months of age.

Two misconceptions about autism are common: first, that because the label implies it, all autistic children are withdrawn and aloof; second, that because many autistic children function at a generally retarded level but possess "islets of higher ability", such higher abilities reflect their "true" potential. Although many autistic children may be socially aloof in early childhood, all but the lowest level autistic children usually become far less withdrawn as they become older, and some may even become quite "social", albeit in a rather bizarre manner. Their islets of near normal and even above normal abilities, rather than reflecting their true cognitive potential, may better be regarded as clues to their pathology.

Early theories about the nature of autism were marred by these two misconceptions: writers suggested that autistic children are potentially normal but have withdrawn from the social world because of lack of affection from cold, intellectual parents. It was not until the past decade or so that workers began to acknowledge that a cognitive/language deficit is most probably the source of the autistic child's problems and that this is due to the child's being born with some form of brain damage or dysfunction. The acknowledgement of such a deficit, however, brought about a tendency for workers to make the possibly erroneous claim that a single factor—such as a delay in language development—underlies all the child's other problems.

This point is made by Fay and Schuler in the opening sections of their book, and they make the commendable suggestion that autistic children will only be understood if we are willing to consider the interaction of their problems in the realms of language, cognition and sociability. For this reason the authors have not restricted themselves to dealing with just the autistic child's language problems, but have also attempted to cover their problems with speech production, communicative competence, and to some extent sociability.

The book is split into two halves, with Fay writing the first half and Schuler the second. Fay provides a general introduction to the topic of autism and then goes on to survey in two separate chapters the speech and language development of autistic and non-autistic children. The clearly written introduction, though placing a little too much emphasis on the language problems of autistic children, concludes that the general acceptance of a cognitive/language deficit that underlies the autistic child's symptoms still leaves us with many unanswered questions about the nature of such deficits and how one may go about remediation.

Fay's coverage of the characteristics of autistic speech and language dwells too long on the topic of echolalia. He concludes that the low level verbal autistic child's apparent tendency to reverse personal pronouns is more likely to be due to him echoing back what is said to him than it is to his consequentially denying the ego. However, given that echolalia is not unique to autism and that many verbal autistic children cease to display this symptom and yet are manifestly still autistic, it seems to me from understanding the author's emphasis on this topic.

Autistic children also have difficulty in acquiring so called "diectic" terms

(I, you, there, here, and so on) which are characterized as being used primarily in social situations, and depend for their use upon an understanding of role-taking, turn-taking, and a general awareness of the nature of social situations. Fay gives a good summary of this topic, but it is difficult to see why he feels the I/you distinction is less important in discussing the autistic child's problems than the me/you distinction; both entail that the child understands that who is referred to by which term depends upon the moment of utterance. And certainly it is with this that autistic children seem to have most problems.

Schuler's chapter on communication is more satisfying. She gives an excellent coverage of what is known about the beginnings of communicative competence in infancy and relates this to the autistic child's problems. Normal children learn about the functions of language long before they learn to speak, and it is here that the autistic child seems to have immense problems. Schuler refers to the autistic infant's seeming lack of communicative intent and his general failure to engage in early conversation-like exchanges.

Schuler's summary of our knowledge of the autistic child's cognitive problems is to be commended, but her reasons for preferring the suggestion that autistic children are "overselective" in the stimuli they attend to is rather unclear. She admits herself that it is only present in some autistic children, and may be a function of low intelligence rather than "autism" *per se*. Autistic children's difficulty in synthesizing their perceptions into wholes or *Gestalten* has been reported as being an important basis for their incomprehension of spoken and gestural language as well as for their lack of appreciation of facial expressions. This area of study has been omitted by Schuler, and the omission perhaps contributes to her inability to come to any clear conclusions as to how the autistic child's many problems are interconnected.

The final chapter deals with guidelines for teaching language to autistic children. Schuler provides us with a brief but useful coverage of the problems one faces in trying to suggest possible language training programmes. She rightly points out that for too long there has been a tendency to try to teach autistic children the skills of speech while ignoring their ability to use the language they have gained. It is therefore refreshing to see that she has attempted to outline ways in which one might go about teaching the functional aspects of language to autistic children, although she admits that there are many problems yet to be solved.

In summary, this book is a welcome breaking of new ground in that it emphasizes the importance of looking at the interaction of the autistic child's handicaps. The authors are also to be commended for their insistence that we should now be considering those factors in infancy which allow normal children to become fully social communicating beings but which are lacking in autistic children. One is left, however, with the reservation that Fay and Schuler have cut their arguments short and left the reader uncertain as to how the pieces of information they have given may fit together. For instance, there is strong evidence that the pragmatic deficits in autism extend beyond the realm of spoken language for autistics are frequently able to understand and produce behaviours to order, but seem unable to use their repertoire of abilities. Moreover, it is lamentable that nowhere in this book are there any tables of data, figures, or statistical analyses. This, together with the fact that few of the studies that are reported are described in detail, can only contribute to a feeling of incompleteness. With reservation the book is highly recommended reading for anyone interested in the field of autism and abnormal language development.

Tim Langdell

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BOOKS

Conversations with children

Learning through Interaction: the study of language and development

edited by Gordon Wells

Cambridge University Press, £20.00

and £6.50

ISBN 0 521 23774 2 and 28219 5

In 1972 Gordon Wells and his associates began a linguistic study of the language development of 128 children in the Bristol area. There were two overlapping samples of children, one from 15 to 24 months and one from 30 to 60 months. Recordings of spontaneous conversations were made at three-monthly intervals. Several experimental tests, and a parental interview when the child was aged 3.5 years, were also carried out. If it is borne in mind that the normal sample size for longitudinal studies of language development is usually a single figure, and a low single figure at that, then it is easy to understand why the detailed results of this study have been awaited with some anticipation.

Alas, this volume disappoints and there is certainly nothing like the wealth of detail that might have been expected. There are some illustrative data throughout the volume but there is a lack of detailed quantification. The volume is largely concerned with the researchers' orientation to language development. As it is the first of a planned series it can only be hoped that the details will follow in later volumes.

Although the contributions were written by separate authors, there is a central thread that unites their effort: a concern to understand language as a social interactive phenomenon. Thus, considerable attention is given to conversation and to the contexts in which conversational acts occur.

In the opening chapter Wells provides an overview of existing work on the sequential structure of conversation and considers the various ways in

which conversational exchanges are maintained between adult and child by a variety of "cohesive ties". This is followed by an all too brief consideration of the ways in which the speech acts of participants are constrained by the preceding discourse and by various additional social considerations. This is such an important aspect of the analysis of conversation that it is surprising that more attention has not been paid to it generally.

French and Wells continue the discussion of conversation in chapter four, pointing out that conversation and the context in which it occurs are too often seen as independent variables. They argue that there is a relationship of "reciprocal constitution" between language and context: "not only does language gain its sense from the context in which it occurs, but settings in turn take on their particular meaning for that occasion via the language that occurs". This is illustrated by reference to the strategies adopted by both sides in adult-child discourse to keep the conversation going in the face of imperfect communication.

MacLure and French provide in chapter six a discussion of similarities and differences between home and school in the structure of conversational exchanges. Among the differences are the higher frequency of pseudo-questions (that is, those to which the questioner knows the answer) in school and the higher frequency of children's own questions at home. Although such differences may seem obvious on reflection, a clear understanding of just what factors and the way in which they influence the operation of conversation are surely essential to understanding how classroom practices affect children.

The authors also discuss some of the revisions of the basic two-party conversational model that need to be made to account for classroom practices, while emphasizing the continuity between the two settings. The chapter

concludes with a sudden brief excursion into some social and political issues of education that here constitute a complete non sequitur.

The role of context in language use and comprehension is the second thread that links these articles. Wells in chapter two provides a review of the recent historical sequence that concentrated on the syntax, semantics and pragmatics of children's utterances, by turn, with an increasingly large role given to contextual factors in interpreting utterances spoken by children.

Bridges, Sinha and Walkerdine discuss in chapter three various aspects of context in relation to comprehension. Their main emphasis is on the way in which children's comprehension initially depends very much on non-linguistic contextual strategies rather than on their understanding of the meaning of words and sentences. Walkerdine and Sinha extend this discussion in chapter five to experimental tests of the locatives "in", "on" and "under" and to the now notorious conversation tests introduced by Piaget. Their chapter continues with some detailed citation of classroom notes; these, however, are more data in need of analysis than addition to the argument. The chapter concludes with a few gratuitous swipes at IQ tests.

The final chapter, by Wells, is a review of the ways in which language and thinking are freed from the context of immediate experience by formal schooling and literacy, and draws heavily on the views of Olson and the work of Scribner and Cole.

All in all, not so much the detailed study we had awaited from this group, more some prolegomena to that study.

John McShane

John McShane is lecturer in social psychology at the London School of Economics.

COGNITION IN HUMAN MOTIVATION AND LEARNING

Edited by G. d'Ydewalle and W. Lens

Festschrift to Dr. J. (R.) Nuttin, in honor of his becoming Professor Emeritus at the Catholic University of Leuven/Louvain (Belgium).

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BOOKS

Eysenck versus Kamin

Intelligence: the battle for the mind
H. J. Eysenck versus Leon Kamin
Macmillan, £12.00 and Pan; £2.95
ISBN 0 333 31279 1 and
0 330 36399 4

The dustjacket of this work, which comprises a contribution each by Professor Eysenck and Professor Kamin followed by their rejoinders, proclaims the question "Environment or heredity? The Crucial Debate on the Shaping of Intelligence," and before even opening the book a reader has received biased information about its contents.

Kamin is certainly an "environmentalist". There is no detectable difference between his 1974 belief, elaborated in *The Science and Politics of IQ* (Penguin, 1977), that: "There exist no data which should lead a prudent man to accept the hypothesis that IQ test scores are in any degree heritable". And his current opinion that: "There are not even adequate grounds for dismissing the hypothesis that the heritability of IQ is zero." However, although he regards the analysis of IQs as futile, the relevance of genetics to human behaviour and intelligence is not actually denied by him.

Eysenck is certainly not an "hereditarian" in the sense that the importance of environmental effects on the differences among IQs in a specified population is denied. He is an "interactionist", or more precisely and neologistically an "adductivist", who argues that the relative contributions of heredity and environment to the production of IQ variation within a population are open to estimation by the gathering of experimental observations and their submission to various statistical and model building procedures. His estimate defended throughout his estimate of the debate is 80% "heredity" and 20% "environment", which is "a tremendous lot of variability to be manipulated by environmental influences."

It is all too easy for Kamin in his piece to set Eysenck up as the ardent hereditarian working only a slight distance away from the eugenic tradition and its early advocacy of sterilization laws. Of course, it is asserted that "ideology" completely determines a belief in the innate bases of IQ scores, and followers of Galton, such as Terman and Burt,

are accused of knowing even before the data were collected that intelligence had to be largely hereditary. Kamin cites an "edited" quotation from Terman (1916) which even as it stands contradicts this accusation. Burt is supposed to have deliberately ignored environmental effects even before his first published paper in 1909, where in fact he pleaded that it was imperative to gain experimental evidence on the question and reasoned that home and social influences, albeit small, were undoubtedly important for mental development. It is also not without significance that Pearson rapped him over the knuckles in 1923 for strongly endorsing an MRC report which showed a positive relation between home conditions and the intelligence of school children.

Eysenck produces some counter-examples to the thesis that the Right favours genetic factors, whereas the Left favours environmental factors.

J.B.S. Haldane is characterized as a Communist who was "convinced of the importance of genetic factors as far as differences in intelligence are concerned." This is correct, but he also accepted that "environment counts for a great deal" and was sceptical about the worth of IQs "the professional brand of intelligence is not the only kind." Some points of information here: Haldane was never editor of the *Daily Worker* and IQ tests were not banned in the USSR until 1936. But why bother with pedantic corrections of this kind? The answer is that Kamin centres Eysenck for misrepresenting the "facts" and mangling primary sources to buttress the "hereditarian" cause.

Eysenck admits that secondary sources are always suspect and that both he and Kamin have made mistakes. But there is not a hint of self-criticism from Kamin. There are, however, errors in his discussion, which deserve comment. For example, his suggestions that "Burt never tested a separated twin" or "calculated a genuine correlation between relatives, in his entire life" is gain-said in L. S. Hearnshaw's *Cyril Burt: Psychologist* (Hodder & Stoughton, 1979). The ridicule directed at Burt for daring to estimate parents' intelligence while interviewing them should also presumably be applied to Earle (1931) and his seven co-workers who reported that in a voca-

litional guidance experiment conducted on 1,200 elementary school children in Burt's allegedly fictitious "typical London borough". "Ratings were made on the basis of the parents of their talk, the width of their interests, the nature of their knowledge of the child, and their plans for his future."

It is also misleading for Kamin to put forward his re-analysis of raw data from Huntley (1966), in substantiation of a somewhat far-fetched argument concerning the IQ correlations between same-sex dizygotic twins (the males are lower because they don't sleep in the same bedroom), as utilizing "IQ" measurements when Huntley has himself emphasized that "intelligence had been assessed on the basis of a comprehensive vocabulary test, and was therefore probably more likely to be influenced by cultural and environmental factors than a non-verbal test, and show a lower heritability, which was in fact the case."

A good thing to emerge from the debate is the acceptance by both antagonists that high heritability of intelligence within each of two racial populations would allow nothing to be said about the genetic causation of the difference in the mean value of intelligence between the two populations. True, Eysenck hedges a bit: "The answer must, I think, be in the negative," and Kamin uses without giving credit the "seed" analogy of Lewontin (1970); but the principle has been agreed.

To sum up, space has prevented a full review of the arguments and empirical results assembled in this controversial and important book. The reader may be convinced by the logic and weight of evidence which Eysenck skillfully deploys to support his case or become enlightened by Kamin's alternative interpretation and appeals to explanation involving determinants such as those of twin dressing alike rather than possessing similar genetic components. Yet, no conclusion should be reached without a thorough scholarly reading and dissection of the primary sources.

R. E. Rawles

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The winter of our discontent

Development, Growth and Ageing
edited by Nicholas Carter
Croom Helm, £10.95 and £4.95
ISBN 0 85664 861 2 and 862 0

One of the most important features of life in the last two decades of the twentieth century will be the increasing number of people in the older age groups. The proportion of the population which is past the retirement age is increasing, but the biggest and most significant change is the rapid increase in the proportion of that group who are very old. This great increase in the number of the oldest people, who are also the frailest, most dependent and most in need of support, is going to have important implications for the health, economic and cultural consequences for the country as a whole. It is essential therefore that those working with the elderly in a professional capacity should have some knowledge of ageing processes.

This short textbook is intended to be used by medical students and is based on a course in development, reproduction, ageing and genetics given at St George's Hospital Medical School, London. The editor is senior lecturer in developmental biology in the department of child health in the school and their colleagues, and researchers from St George's who represent paediatrics,

genetics, geriatric medicine and gerontology. However, the book is a collaborative effort and individual sections are not by named authors. The stages of the medical curriculum at which the course is taught is not stated, but it is presumably part of the basic medical sciences syllabus.

The book covers the human lifespan in chronological order from prenatal development to old age. However, the topics represented in detail seem to reflect the individual interests of the authors rather than parts of a comprehensive plan to cover all important aspects of development, growth and ageing.

The first chapter is a short account of genetics and describes abnormalities of genes and chromosomes and how these may influence development. Examples of genetic abnormalities are given but it is difficult to see the relevance of the picture of the hand of a child with polydactyly when no other illustrations of congenital abnormalities are given. This is followed by a short chapter on molecular aspects of development using as examples the development of the red blood cells and skeletal muscle. A more comprehensive but less detailed chapter on changes at birth and in childhood reviews the physiology of the first years of life. A short chapter on growth is largely concerned with methods of measuring growth in children but a brief account of factors influencing growth is given; and the chapter on puberty is even shorter and is purely descriptive.

The two longest and best chapters (occupying half the book) consider the development of the nervous system and the biology of ageing, and enhance the quality of the book as a whole. Doctors working with the elderly have no doubt that it is the functioning of the brain that is the key to good quality of life in old age. Abnormalities in intellectual functioning and memory, control of posture and balance, and control of the bladder are common causes of loss of independence in an old person. Thus, the chapter on the development of the nervous system is a very welcome feature with the details particularly well with the developments of communication skills, a difficult concept for most medical students, and one which is inadequately covered by many medical textbooks. The chapter on ageing covers population, individual, and cellular ageing and gives a useful summary of a number of theories of ageing.

The quality of this book is variable and seems to incline in an editorial direction. If the remaining chapters could be brought up to the standard of the two excellent chapters on the development of the nervous system and on ageing, the book would be a useful contribution to medical education.

R. W. Sloui

R. W. Sloui is professor of geriatric medicine at the Queen's University of Belfast.

Control of education

The Reorganization of Secondary Education
by Philip H. James
National Foundation for Educational Research, £6.95
ISBN 0 85633 214 3

Much research into local government consists of detailed investigation of specific problems at particular localities. The results either appear in diverse and specialized publications or they remain unpublished except in a postgraduate thesis stored away in the recesses of a university library. *The Reorganization of Secondary Education* is an attempt to bring together the fruits of separate local inquiries and to draw conclusions from them. Without doubt, the enterprise is of value. It also leads into a wider debate about how policy evolves in local government and about the extent of central control or influence over local councils.

The argument over comprehensive secondary education is atypical in that it tends to engage political parties in a direct ideological conflict over a matter of local administration. The sale of council houses is the only parallel example. To start with, especially before the late 1960s, party principle was not the deciding factor in local policy. Not all Labour councillors supported the comprehensive principle: some Conservative authorities introduced the comprehensive system because, in rural areas, it saved money. Where a council was not dominated by a strong party caucus, the chief education officer could be highly influential. Administrators tended to become more favourable to reform as doubt grew about the merits of the selection process. Parents and local teachers counted for little. And while the political colour of the Government had a major impact on local events, it was not decisive. Mrs Thatcher, as Secretary of State for Education, presided over the demise of more grammar schools than any of her predecessors.

James does not put much weight on the Thatcher decision as it did not fall within the case-study which are the foundation of his work. Nor does he emphasize the basic point that it is easier for civil servants to stop local developments than to cause them to happen. Inertia is more comfortable than action. Certainly James does show that Whitehall likes to avoid crude direction; it prefers to nudge, to show, to manipulate and, as a last resort, to veto.

This book could be used as evidence that Whitehall does not play such a dominant role in local affairs as is widely believed, yet a final judgment on central-local relations needs more research to be done on other local services. The main authority on this topic, Griffiths's *Central Departments and Local Authorities*, is now 15 years out of date. Fresh work is needed to keep abreast with events. Recently there has been a change in the style of central supervision. Some detailed controls over administration have been withdrawn. This liberation has been offset by stronger control over financial expenditure and a vigorous financial squeeze through the grant system designed to restrain revenue expenditure.

A final note of warning. Although the title of this volume is a witty accurate indicator of its contents, it may still mislead. The author is mainly concerned with local government and the methodology of local research rather than educational administration. If the book is put on library shelves allocated to education, it will be in the wrong place.

P. G. Richards

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BOOKS

Redistributing wealth and power

Inequality in Britain: freedom, welfare and the state
by Frank Field
Fontana, £2.50
ISBN 0 00 635759 8

Over fifty years ago, Gunnar Myrdal wrote *The Political Element in the Development of Economic Theory* to expose the subtle biases that enter into the supposedly objective and value-free positions of economics. The political element in the study of social policy needs no such exposure, indeed it tends to be paraded blatantly for all to see, as in Frank Field's new book on *Inequality in Britain*, which is a cross between an academic analysis and a political manifesto.

Field's purpose is to set the study of poverty in a more general context of overall income and wealth distribution in Britain. Early chapters document the extent of contemporary poverty, the groups most affected, and discuss the definitions of poverty used in classical and contemporary studies. Three chapters then analyse the wartime Beveridge proposals, and show how in practice these were watered down and modified in crucial respects. The Exchequer contribu-

tion to social security was always at a lower level than he envisaged, while the levying of national insurance contributions has become increasingly regressive.

The latter part of the book then considers what the author calls the "other front" welfare states—welfare benefits provided by companies, benefits in the form of tax allowances, the welfare state, derived from unearned income, and the private market welfare state, particularly in health and education. Each of these is documented, particularly from data gathered by the late Royal Commission on the Distribution of Income and Wealth to show convincingly how taxation, employment and wealth confer advantages other than those purely reflected in take-home pay. A particularly strong case is made for treating certain tax allowances as welfare benefits, an argument strongly resisted for some time by the Inland Revenue.

The political purpose of the analysis is quite overt. Field's "home-made socialism" aims to ensure that each of the five welfare states combats, rather than aggravates, poverty and equality. From this starting point a series of major reforms is advocated, aimed at

increasing the power of those on or below average earnings. Labour governments, Field argues rightly, have never taken a comprehensive view of welfare. Maintaining that they should do so, he spells out twelve policy proposals to this end, including better child benefits, a new social security tax, a new disability benefit, changes to the tax system to make allowances less favourable, and tighter taxation of wealth.

Inequality in Britain is well written and thoroughly documented, drawing on both government statistics and the academic social policy literature. Yet the force of its argument is weakened by its overt political aims. This leads to an avoidance of awkward political realities which might weaken the case presented. As David Donnison argued when chairman of the Supplementary Benefits Commission, the poverty lobby needs to be more aware of the extent to which the improvement of welfare is politically unpopular. Though costed, how widely would Frank Field's proposals be accepted? Does he not need to consider the widespread unpopularity of higher taxation? To what extent does the neglect of welfare by Labour governments reflect the

realities of their political support? More substantially, the book displays "weaknesses of Fabian reformism in setting out a programme for political change. Though extensively documented, the analytic framework is an empiricist one in the spirit of: 'Here are the facts and here is what we must do about them.' Too much is prescribed and too little is explained. The persistence of inequality is more fundamentally problematical than Field allows, and it is doubtful if there are such simple political solutions to be found to deeply-embedded features of British social structure. Sociologists, of course, have thrown a good deal of light analytically upon the nature and extent of inequality, without being particularly concerned with making policy recommendations. How to blend the political and the normative in a convincing manner, so that the analysis substantiates rather than merely justifies the policy recommendations, remains intractably difficult.

Martin Bulmer

Martin Bulmer is lecturer in social administration at the London School of Economics.

The efficacy of the family poverty lobby

The Movement for Family Allowances, 1918-45: a study in social policy development
by John Macnicol
Helmman Educational, £15.00
ISBN 0 435 82555 0

The passing of the Family Allowance Act by the wartime Coalition Government in February, 1945, laying one of the main foundations of post-war welfare state, has traditionally been regarded as a triumph for progressive "middle opinion"—the culmination of years of campaigning by those who saw a system of child allowances as a crucial weapon in the battle against poverty, malnutrition and ill-health among large working-class families.

Dr Macnicol's impressive study is the first detailed history of the movement for family allowances, from the pressure for a "family wage" during the First World War to its enactment at the end of the Second.

After a brief survey of the historical precedents for supplementing family income, Macnicol concentrates his attention on the major pressure groups for family allowances, Eleanor Rathbone's Family Endowment Society,

founded in 1924, and its principal arguments—that family allowances would alleviate poverty in large working-class families, check the fall in birthrate, and improve the general health and "efficiency" of a significant portion of the population.

The author also considers how family allowances were increasingly recognized as an important means of tackling unemployment and assistance schemes of the interwar years, as a means of ensuring basic subsistence while preserving the principle of "less eligibility", the gap between low wages and unemployment pay. Other chapters discuss the attitude of the political parties to the family allowance issue and its ultimate adoption as part of the Beveridge "package" of social security.

Dr Macnicol illuminates many important themes in the social policy debates of the interwar era, not least in his analysis of the composition and tactics of the Family Endowment Society. Like earlier largely middle-class pressure groups, it did not aim to become a mass movement, but instead concentrated on capturing influential figures in the corridors of power—Beveridge himself being one such

"capture". The author's description of the family poverty debate which flared up in the 1930s between the advocates of family allowances or a minimum wage and officials who stubbornly refused to accept the findings of many social inquiries that ill-health was an inescapable consequence of low pay, large families and unemployment is particularly interesting.

In this discussion, however, Macnicol does not give sufficient weight to the constraints and priorities within which governments and officials of the period believed themselves to be operating. Mistaken, blinkered and, occasionally, even wilfully obdurate they could certainly be, but the author perhaps fails to achieve a proper understanding of the arguments of senior officials who had witnessed major improvements in public health in their lifetimes and regarded much of the evidence of the Family Endowment Society and similar pressure groups as containing a significant degree of speculation. Accordingly, when Macnicol concludes that family allowances were introduced not in response to the arguments of the family poverty lobby but as a convenient instrument of economic management, one which en-

sured a minimum level of subsistence while avoiding the introduction of a minimum wage and the erosion of the gap between low pay and social security, his argument is not entirely convincing. The problem is raised in the introduction where a somewhat stark contrast is drawn between what are termed "pluralist" (or "consensus") and "critical" approaches to social policy formation. It is naive to argue, as Macnicol does, that the adoption of a "pluralist" framework necessitates seeing the state as a "neutral" arbiter in matters of social policy, rather it forms one component in a complex process of interaction and negotiation.

Instead Macnicol's "critical" perspective results in him wielding a rather blunt instrument in his approach to the multifarious elements which contributed to the enactment of this particular piece of legislation. Such criticism, however, should not be allowed to detract from what remains a scholarly and important case study of a major feature of modern British social policy.

John Stevenson

Dr Stevenson is senior lecturer in history at the University of Sheffield.

Debunking the propositions of monetarism

Inflation, Depression and Economic Policy in the West
edited by Anthony S. Courakis
Mansell, £15.00
ISBN 0 7201 0915 9

This symposium convincingly debunks the basic propositions of monetarism—whether of the academic variety pioneered by Milton Friedman, or the "practical" variety now professed by the monetary authorities in the US and including the United Kingdom.

The first of the 13 contributions is by Robert Gordon, of Northwestern University, on international monetarism, wage push and monetary accommodation. The remaining 12 include a long chapter on monetary targets by the editor, Anthony Courakis, and six smaller chapters on monetary policy in European countries, the UK being dealt with by Charles Goodhart of the Bank of England.

Friedman himself has always emphasized that his monetarist prescription is based on the premise that the demand function for money always assumes a particular form with parameters which remain stable through time—and in particular more stable than functions such as the Keynesian consumption func-

tion that are offered as alternative key relations. However, as Courakis concludes from British evidence, here "to this day no demand for money function for M3 or sterling M3 has been traced that exhibits even 'reasonable' let alone 'stable' responses and which may therefore be said to provide a reliable foundation of policy design" (page 309).

And experience in other countries is not much more encouraging. Courakis finds that the essential characteristic of "practical" monetarism is the importance it attaches in the practical operation of monetary policy, to the growth path through time of the money stock, as measured in various ways in different countries but in the UK by the series sterling M3 (or EM3).

What, then, is the role of EM3? It is usually, says Courakis, described as an "intermediate" variable—a label which serves to distinguish it from two other kinds of variables relevant to monetary policy: those actually controlled by the authorities and used by them as instruments of monetary policy (for example, the central bank's rediscount rate, the reserve ratios imposed on the commercial banks, and the price quoted by the Government broker for his tap stocks); and the "ultimate goal variables" (for example, the price level, or nominal gnp, or national income).

In practice the actions taken by the authorities to implement monetary policy do not have a readily predictable effect on the ultimate goals of monetary policy: action has to be taken under conditions of ignorance and uncertainty. In these circumstances, the practitioners of "practical" monetarism claim that their unenviable task is facilitated by reference to an additional variable (the money stock) which is neither a controlled variable nor a goal variable, but in some sense stands halfway between. But, asks Courakis, in what sense? What exactly is the role of EM3, and of its equivalent in other countries? Is it just an "information" variable, helpful in diagnosis? If so, is it to be a unique source of information, or has it to be taken in conjunction with other evidence? Alternatively, is EM3 useful as a "policy indicator", conveniently summarizing in a single figure the stance or thrust of the current setting of all the instruments of monetary policy? Or again is EM3 a reliable proxy for the chosen goal-variable (say national income) or (better still) a reliable predictor of what the national income will be in the near or distant future? Is

EM3 indeed the cause of the national income? Finally, on which of these bases, if any, is it appropriate to select EM3 as a target variable for monetary policy?

The analysis given in this volume, and especially in the scholarly contributions by Anthony Courakis and Charles Goodhart, shows that EM3 (and its equivalent in other countries) cannot be regarded as an acceptable candidate for any of the above roles.

Brian Tew

Brian Tew is Midland Bank professor of money and banking at the University of Nottingham.

Old recipes

Richard Bradley, who was appointed professor of history at the University of Cambridge in 1724 was the author of a number of books, including two on cookery and food, *The Country Housewife* and *The Lady's Director*. Apart from recipes these books contain amusing anecdotes and general observations on foodstuffs. Both books are available in a single-volume facsimile of the 1736 edition, introduced and edited by Caroline Davidson and published by Prospect Books at £18.00.

Colleges of Technology

DUNDEE COLLEGE OF TECHNOLOGY
SENIOR LECTURERSHIP
IN QUANTITY SURVEYING

The person appointed will be required to make a major contribution to the operation of an existing unclassified Degree Course in Quantity Surveying. He/she will also be expected to contribute to the development of an Honours Degree in Quantity Surveying and promote research within the Department.

The salary (currently under review) is on the Senior Lecturership (A) Scale, via £10,500-£11,697 (bar), £13,281, with initial placing dependent on approved prior experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application form obtainable from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee DD1 1HG to whom completed application forms should be returned by 5 May 1981.

THES5

DUNDEE COLLEGE OF TECHNOLOGY
Senior Lecturership (A)
in Computing

(Department of Mathematics & Computer Studies)

The person appointed will be required to undertake the development of computing as a major discipline in the college's BSc (Hons) degree in Science. Applicants should have suitable academic qualifications, teaching, research and/or industrial experience.

Salary Scale Senior Lecturer (A) scale £10,500 - £11,697 (bar) - £13,281 (currently under review), with initial placing dependent on approved previous experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application form may be obtained from the Personnel Officer, Dundee College of Technology, Bell Street, Dundee DD1 1HG, to whom applications should be lodged not later than 5 May 1981.

THES5

CAMBRIDGESHIRE
COLLEGE OF ARTS AND
TECHNOLOGY

LECTURER IN GEOLOGY

required from 1 September to

teach Structural Geology, Metamorphism and Evolution mainly on the modular B.Sc. (Hons) Geology degree.

Candidates should have a higher degree in Geology and a strong interest in field work. An active interest in research is desirable.

Salary scale £9,034 - £9,538 (subject to confirmation) starting point depending on qualifications and experience.

Further details and form from Head of Department of Science, CCAT, Cambridge, CB3 0A (Tel: 0223 757111 Ext. 141). Forms should be returned by May 8.

THES5

Polytechnics

WOLVERHAMPTON
POLYTECHNIC OF
LIFE IN ECONOMICS

Candidates should possess a postgraduate degree in economics, be willing to engage in research and lecture to both specialists and non-specialists.

Preference may be shown to applicants with a specialism in labour economics.

Application forms and details from the Personnel Officer, WOLVERHAMPTON, WV1 1BB. Telephone (0902) 11699 (4 line answerphone service).

THES5

Polytechnics

HEAD OF DEPARTMENT OF
INDUSTRIAL AND
PRODUCTION ENGINEERING
GRADE VI

£16,045-£18,590
with possible election to
A PROFESSORSHIP

Applicants with high academic qualifications and appropriate research and/or industrial experience are invited for this first appointment. It is envisaged that the person appointed will be a recognised authority in one of the following fields: Production Systems, Production Processes, Computer Aided Manufacture, Robotics, Mechanical Assembly or Materials Science. The ability to lead and motivate well qualified staff in this important and rapidly expanding area of study is essential. Further details and form of application from The Assistant Director (Administration), Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date for receipt of applications - 5 May 1981.

THES3

TRENT
POLYTECHNIC
NOTTINGHAMSHEFFIELD CITY POLYTECHNIC
DEPARTMENT OF
ECONOMICS AND BUSINESS STUDIES
LECTURER II IN ECONOMICS

Required to join an established team of economists. Applicants should be able to contribute to the teaching of economics, preferably related to the analysis of business. Salary will be at an appropriate point within the scale £9,443 - £10,401 per annum. Application forms and further particulars are available from the Personnel Officer, Sheffield City Polytechnic (Dept. T/5), Hallam House, Flaxman Square, Sheffield S1 2BB, or by telephoning 0114 251 367. Completed forms should be returned by 5 May 1981.

THES3

ULSTER
POLYTECHNIC

FACULTY OF BUSINESS & MANAGEMENT

Applicants for the following two posts should be professionally or academically qualified. It is essential that they have a depth of management experience in the Catering Industry.

PRINCIPAL LECTURER - CATERING MANAGEMENT
Applicants for the post will be expected to lead a small team of teaching staff in the area of Catering Management and to make a significant contribution to teaching and subject development in either food or accommodation studies.

SENIOR LECTURER - CATERING MANAGEMENT
Applicants for the post will be expected to take overall responsibility for the technical areas of food production and food beverage service.

FACULTY OF SCIENCE

LECTURER II/SENIOR LECTURER - GEOGRAPHY

Applicants should hold a good class of honours degree and have research experience up to the MA/MSc or PhD level preferably in an aspect of environmental geography. Relevant practical or teaching experience would be an advantage.

FACULTY OF TECHNOLOGY

LECTURER II/SENIOR LECTURER - ELECTRICAL AND ELECTRONIC ENGINEERING

Applicants are invited for a lecturership within the School of Electrical and Electronic Engineering. Duties will include contributing to the teaching of laboratory development associated with degree, diploma and certificate courses. Evening teaching may be required. Also, participation in curriculum and course planning and supervision of students on industrial placement is expected.

Applicants should hold a good honours degree and should have teaching, industrial or research experience in either of the areas:

- microelectronic systems design,
- control systems engineering.

LECTURER II/SENIOR LECTURER - INDUSTRIAL CONTROL

The successful candidate will contribute to the work of the School of Mechanical and Industrial Engineering in one or more of the following areas fluid power, control systems, robotics.

Applicants should possess a relevant degree and have research, industrial or teaching experience.

Salary Scales:
Principal Lecturer £11,298-£14,238
Senior Lecturer £9,624 - £11,328/£12,141
Lecturer II £8,482 - £10,431

The Polytechnic is a direct grant institution with an independent Board of Governors. It opened in 1971 and has a student population of some 7800. It has extensive, new purpose-built accommodation, including 830 residential places on the 114-acre campus overlooking the sea at Jordanstown, a pleasant and quiet residential area. There is a scheme of assistance with removal.

Further particulars and application forms which must be returned by 11 May 1981 may be obtained by telephoning Whiteabbey (0231) 86131 Ext. 2243 or by writing to: The Establishment Officer, Ulster Polytechnic, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB.

THES5

Colleges of Higher Education

CHELSEA
Essex Institute of Higher Education

The Institute is the two site centre of higher education in Essex, located in this rapidly expanding area of East Anglia. The Institute is committed to a range of new advanced vocational training in response to and in co-operation with regional employers. The posts, available from September 1st 1981, are as follows:-

BUSINESS STUDIES (2 posts SL or LI)
- full-time and part-time BSC Higher and ICSA and Final Professional courses.

QUANTITY SURVEYING (1 post SL or LI)
- Building Measurement and/or Building Technology

TEACHER EDUCATION (4 posts SL or LI)
- Mathematical Education
- Organisation and Administration
- Curriculum Studies
- Craft, Design & Technology
- Business Studies

(Initial and in-service courses at diploma and degree level in primary, secondary and further education. Major new initiatives in secondary shortage subjects are planned.)

PRODUCTION ENGINEERING (2 posts SL or LI)
- Automation; Production Planning; Quality Control
- Materials; Fabrication; Industrial Administration.

SOCIAL SCIENCE (1 post LI or LI)
- Academically well-qualified social science/psychology graduates for Health & Social Services and industry-based courses.

Phone 0245 364491 Ext. 221 or write for further particulars to the Institute Secretary, Chelsea Institute of Higher Education, Victoria Road South, Chelmsford, Essex, CM1 1LL. Closing date Friday 8 May 1981.

THES5

HEAD OF SCHOOL
ELECTRICAL,
ELECTRONIC
& CONTROL
ENGINEERINGHEAD OF SCHOOL
MECHANICAL AND
PRODUCTION
ENGINEERING

Applications are invited for these key posts from suitably qualified and experienced persons. Both Schools are actively engaged in the development of advanced courses, research and consultancy.

HEAD OF DEPARTMENT GRADE V

£13914 - £15462

Application forms and further details may be obtained from:

The Personnel Office
HULL COLLEGE OF HIGHER EDUCATION
Ingleside Avenue, Hull HU8 7LU
Tel: (0482) 42167

Roehampton
Institute

Courses offered by the Roehampton Institute of Higher Education are in combined studies leading to university first degree degrees. The Institute now seeks to make the following FIXED-TERM appointments as soon as possible for the period 1 September 1981 to 31 August 1983:-

LII/SL IN SPORTS STUDIES

The successful applicant will be expected to offer Physiology and Biomechanics within a degree programme which concentrates on an integrated approach to performance assessment. In addition, assistance in some of the following practical areas would be an advantage: Athletics, Volleyball, Badminton, Team games.

Salary: £8,482-£12,141 plus London Allowance £780.

Further particulars and application forms may be obtained from R. A. Fennell, Assistant Secretary, Roehampton Institute of Higher Education, Richmond Building, Dept. Stuart College, Roehampton Lane, London SW16 6PL. Closing date for receipt of applications: 18 May 1981.

THES5

CANTERBURY
CHRIST CHURCH COLLEGE OF
HIGHER EDUCATION

Applications are invited for the post of Lecturer II/Senior Lecturer in Modern Languages Studies.

The successful candidate will be expected to teach and supervise students in the field of modern languages.

Applicants should have a postgraduate degree in a modern language and a minimum of three years' teaching experience.

Further details and application forms may be obtained from the Personnel Officer, Canterbury Christ Church College, Canterbury, Kent CT1 1AB. Closing date for receipt of applications: 18 May 1981.

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For further details please write to Mrs. Joan Long, College Secretary, to whom applications should be sent not later than 18 May.

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Colleges of
Higher EducationDERBYSHIRE
COUNTY COUNCILMATTHEW COLLIER OF
HIGHER EDUCATIONLECTURER II/SENIOR LECTURER
IN MODERN LANGUAGES

Applications are invited from men and women with extensive school experience and preferably some experience of higher education.

The successful candidate will become Head of the Department of Modern Languages and will be required to develop the MA in English Literature and Language and to supervise the MA in English Literature and Language.

An appropriately qualified and experienced applicant could be considered for the post of Lecturer II/Senior Lecturer in English Literature and Language.

For further details please write to Mrs. Joan Long, College Secretary, to whom applications should be sent not later than 18 May.

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For further details please write to

Overseas continued

CHURCHLANDS COLLEGE PERTH, WESTERN AUSTRALIA

Churchlands College was established in 1972 and is situated 10 kilometres from the centre of Perth. In 1981, 1,200 students are enrolled in business studies courses and 1,600 students are enrolled in teacher education courses. There are 150 members of academic staff.

INTERVIEWS: Two senior members of staff will visit the United Kingdom in 1981 and candidates who have been short-listed may be offered the opportunity to attend an interview.

LEVEL OF APPOINTMENT: Appointments may be made at the Senior Lecturer level, Lecturer level, Assistant Lecturer level, or Tutor level, dependent upon qualifications and experience.

QUALIFICATIONS: A suitable tertiary qualification, preferably at graduate level, together with evidence of high capacity and, where applicable, membership of professional institutions. Relevant experience is essential. Applications are invited for the following positions, which it is expected will need to be filled for the 1982 academic year. Appointees will be required to commence teaching in February 1982 or in July 1982.

SCHOOL OF BUSINESS STUDIES

The School offers a Bachelor of Business with streams in Accounting, Administrative Studies, Finance, Information Management and Information Processing, and Graduate Diplomas in Finance and Management Studies. The College has a well-equipped computer centre with a PDP 11/44 and IBM 4331 dedicated to student use.

Accounting
To teach Management and Financial Accounting. The ability to teach Accounting Theory and/or Contemporary Accounting issues will be an advantage.

Administrative Studies
To teach in the areas of original theory and design, managerial processes and policy and the environment of organisations.

Business Workshop
To assist in developing and creating materials with a multi-disciplinary approach, for the Business Workshop. To conduct workshop sessions and/or seminars and act as a catalyst in group projects. To assist in fostering and maintaining contacts with the public and private sectors, and other colleges of advanced education and universities.

To teach and prepare courses in Small Business Management.

Marketing
To teach in the areas of Marketing. Some practical experience is essential. An ability to teach in the fields of Business Statistics and/or Economics would be an advantage.

Economics and Quantitative Methods
To teach in the areas of Economics and/or Management Science and Business Statistics.

Information Systems
To teach in the general area of information systems. Applicants should have experience in the development and implementation of commercial systems.

Visiting Fellow in Accounting
Applications are invited for the position of Visiting Fellow in Accounting for 1983 or 1984. The appointee will conduct seminars in both graduate and undergraduate courses in Accounting. Appointees should be well qualified academically and have business and/or teaching experience. Salary and travel arrangements will be negotiated.

Visiting Fellow in Finance
Applications are invited for the position of Visiting Fellow in Finance for 1983 or 1984. The appointee will conduct seminars for final year undergraduate students and for post-graduate courses. The Fellow is expected to be an experienced academic and/or practitioner in the field of finance and has either recently published or completed a graduate level research degree in this field. Salary and travel arrangements will be negotiated.

SCHOOL OF TEACHER EDUCATION

The School offers pre-service courses in primary and early childhood teachers education for the Diploma of Teaching, post-experience courses in the Bachelor of Education degree and Post-graduate Diplomas in Mathematics Education, Music Education, Remedial Education and Science Education.

Early Childhood Education
To teach courses in the education of young children in the age range 3 to 5 years in such areas as child growth and development, exceptional children, learning, philosophical foundations of early childhood education, multicultural education and curriculum studies.

Educational Psychology
To teach courses in developmental psychology and learning, or remedial and special education.

Primary School English
To teach courses in general and primary school English and/or reading education.

Library and Media Studies
To teach courses in school library services and resources for children.

Mathematics Education
To teach courses in primary school mathematics education.

Music Education
To teach courses in general early childhood and primary music education and specialist courses for music specialists in the primary schools.

Physical Education
To teach courses in primary school physical education in such fields as movement education, educational gymnastics, educational dance.

Science Education
To teach courses in primary school science education.

VISITING FELLOWS

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Art education with special interest in ceramics
Child growth and development
Curriculum development
Mathematics education
Multicultural education
Music education
Science education
Fellows will be expected to have good relevant teaching experience in early childhood centres or primary/elementary schools and a strong recent background of post-graduate studies in a specialised field listed above or any other relevant specialist field. Salary and travel arrangements will be negotiated.

GENERAL

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Senior Lecturer I : Australian \$28,090 - £29,917
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APPLICATIONS:
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UNIVERSITY OF CAPE TOWN SENIOR LECTURER OR LECTURER IN HISTORY

Applications are invited for the post of Senior Lecturer or Lecturer in History, vacant as from 1st January 1982. The appointment, according to qualifications and experience, will be made on one of the following salary scales: Senior Lecturer - R14 370 - R10 885 + 675 - R14 370 + 810 - R20 860 per annum; Lecturer - R19 230 per annum; Lecturer - R19 230 + 675 - R14 370 + 810 - R19 230 per annum. In addition a service bonus of nearly one month's salary is payable annually.

The successful applicant will be required to participate in the teaching of undergraduate courses, and will be expected to offer a specialised Honours course and to assist with the supervision of research. An ability to contribute to teaching in the field of Modern History is essential. Specialisation in one or more of the following subjects, though not essential, may be an advantage: European Colonialism and Imperialism; Twentieth Century World History; Urban History; British History; Modern European History; American History; Historiography.

Applicants should submit a curriculum vitae, stating present salary, research interests and publications, teaching experience, the date duty could be assumed, and the name and address of three referees. Further information should be obtained from the Registrar, University of Cape Town, Strijdom Building, Appointments Office, Rondebosch, 7700, South Africa. Closing date for applications 30th June 1981.

The University's policy is not to discriminate in the appointment of staff on the grounds of sex, race or religion. Further information on the implementation of this policy is obtainable from the Registrar.

THES12

UNIVERSITY OF CAPE TOWN SENIOR LECTURER & LECTURER IN METALLURGY AND MATERIALS SCIENCE

Applications are invited for the following posts in the Department of Metallurgy and Materials Science.

SENIOR LECTURER to be responsible for new courses for the degree of B.Sc.(Eng) in Metallurgy Engineering which will be expected to carry out and supervise post graduate research on topics relevant to the metallurgical and materials industries of South Africa. Previous academic experience is desirable but not essential, and persons from industry are invited to apply.

LECTURER to undertake teaching at undergraduate level and to be able to initiate and supervise research programmes. Although at post graduate degree level, teaching experience would be advantageous. Pay on not essential and persons with industrial or laboratory experience in metallurgy, materials science, solid state physics, or chemistry are invited to apply.

GENERAL: Appointments, depending on qualifications and experience, will be made on the salary scales: Senior Lecturer - R14 370 + 810 - R20 860 p.a.; Lecturer - R19 230 + 675 - R14 370 + 810 - R19 230 p.a. In addition a service bonus of nearly one month's salary is payable annually.

Applicants should submit a curriculum vitae, stating present salary, research interests and publications, the date duty could be assumed, and the name and address of three referees. Further information should be obtained from the Registrar, University of Cape Town, Strijdom Building, Appointments Office, Rondebosch, 7700, South Africa. Closing date for applications 30th June 1981.

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Union view

No reason to cut down on places

A little later than most of my contemporaries I have finally completed my curriculum vitae. When I graduated from University College, Bangor, there were roughly the same number of jobs for new graduates as today: the problem is that there are currently 25 per cent more people looking for work. And about one in five of this year's graduates will still be unemployed at Christmas.

Some people will doubtless take the opportunity to claim that this merely proves that there was far too much expansion in the 1960s, and anyway the pruning will lead to prospective students being more "realistic" and "selective" about the subjects they study. The implication that I've wasted four years acquiring degrees in history is no doubt one which will go down well with advocates of the broad steer. It is, of course, merely an accident of history that Dr. Boyson was a student at a time when historians could be afforded.

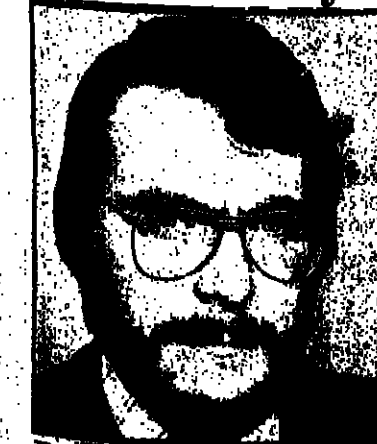
Away from the cynicism of that point of view there remains the reality that has to be faced: the enormous waste of human, physical and economic potential involved in putting graduates on the dole or relegating them to work which fails to use their skills and experience. I am not arguing that graduates should be a special case - but the economic reality is that a society that wastes its resources is hardly likely to recover very quickly from this recession.

The Government's own Unit for Manpower Studies has concluded that the demand for graduates is likely to be greater than the supply over the next ten years, particularly with the expected decline in the number of graduates later this decade. And so any talk of cutting back on first degree places in order to produce a less-qualified dole queue, is simply ludicrous.

The problem at the moment is the absence of any acknowledgement that educating graduates is a long-term investment. The current short-term bias of companies and the public sector - filling just immediate vacancies and consigning thousands to the rubbish-bin-means that acquired skills are going to be underdeveloped and inadequate to meet society's predicted needs. It is also the case that the kind of degree one acquires is not the determi-

Science today

Evolution: the survival of the fittest theory



Robin McKie

Knocking evolution - first published as a theory by Charles Darwin in 1859 - has become a fashionable, business-attaché and criticisms have always been there, but have now reached the stage of filling pages of Sunday newspapers and major television programmes.

Of course there are good grounds for questioning its principles. For instance, poor geological records of gradually evolving species were acknowledged by Darwin himself as a major drawback to his work and many paleontologists today remain con-

cerned about still-incomplete fossil sequences. One of the first to seriously question evolution in public was US lawyer Norman Macbeth whose book *Darwin Retired*, published several years ago attempted to show that if Charles Darwin now put his case in a law court, it would be thrown out immediately by any competent lawyer. Sadly, the garbled and circuitous logic put forward by Macbeth was more damning of the legal profession than of the proponents of natural selection.

But now forays against Darwinism have become far more academically respectable, and one of the most interesting of these has been made by Reg Gorcevski of the Ontario Cancer Institute, and Ted Steele, at the Clinical Research Centre in Harrow.

Their experiments give support to the previously dismissed views of French naturalist Jean Lamarck who proposed at the beginning of the 19th century that species evolved through the inheritance of acquired characteristics, such as large muscles or longer necks. For years, this view was rejected until the two scientists reported that they had induced tolerance to foreign cells in strains of mice and this tolerance could then be passed on to succeeding generations.

Steele believes that messenger viruses within the body could be responsible for transferring genetic information from body cells to reproductive cells - and this form of neo-Lamarckian operates in conjunction with normal Darwinian evolution. If nothing else it is a clear candidate for a major Karl Popper award for good theory - bold and imaginative.

Sadly the theory does not now seem to be standing up well against the full glare of scientific scrutiny. Several scientists have repudiated Steele and Gorcevski's work and in the scientific journal *Nature* two weeks ago, a team led by Professor L. Brent of St. Mary's Hospital medical school failed to confirm, repeat or extend any of the experiments of Steele and Gorcevski.

While acknowledging the enterprising nature of their work, the paper concludes that the team could find no support for the original research. "We still believe that all experiments executed hitherto to corroborate the Lamarckian interpretation can be faulted", they state.

Of course the issue is far from being finished and no doubt a great many more ingenious experiments will be attempted in a bid to prove or disprove Darwin. However, it is perhaps timely to retain some sense of perspective, for all too often the faults of Darwinism are more apparent than real.

Admittedly there is an aura of smug arrogance about a theory that proposes that all life on Earth is simply the result of the most environmentally fit organisms living the longest, and producing the most offspring. Yet its basic tenets disguise an intricate logic and when put forward last century anticipated many subsequent discoveries involved in the complex transfer of genetic information.

Natural selection, in conjunction with its modern interpretations, still represents the principal source for understanding the diversity of all life on this planet. It is an indication of a healthy scientific and academic community that its principles be questioned and tested, but it is certainly premature to assume Darwinism is dead.

Individual solutions, however, actually conceal the problem. The reality of unemployment today means we're not so much talking about a last generation of 16 to 19 years-olds: it's those between 16 and 22 who are going to find themselves rejected. The onus has to be on those of us concerned about education and about people's need to force the Government to act.

NUS has recently launched its own campaign on unemployment, highlighting the need both for immediate and practical measures to be taken by student unions to assist the unemployed by opening up student and educational facilities, by providing information and advice for the unemployed, (including ex-students) through educational reform and by creating a long-term approach to the question of graduate training and employment.

The question of graduate employment isn't just a problem for individual graduates. Some people are using the situation as a justification for cutting down on first degree places: that means those left in the education system at the end of this year need to be as concerned to find solutions as those facing the dole themselves. It's not just self-interest - it's your future as well.

Leighton Andrews

The author is vice president (welfare) of the National Union of Students



Welding training during a programme for the young unemployed

Don's diary

Sunday

I read the Sunday papers with some sadness. *The Observer*, among others, are speculating about the future of my university, the New University of Ulster, and have chosen one of the critical times to do so. We all know that universities are under scrutiny and pressure but why single out us at the instant UCCA candidates are making their final choice of course and institution. The same thing happened in the autumn as they filled in the UCCA forms, perhaps it is an orchestrated campaign to close us! As an institution we have maintained a steady state since the early 1970s despite the "troubles" which result in a higher proportion of our local students crossing the water and despite a government imposed quota in the area of teacher training. The Education Centre is our principal vocational school, we were not considered for medicine, or law, the backbone of many university recruitment statistics, and although agriculture was considered, this was vetoed. Now the press is sniping at us, for the sake of a newsworthy story or the reputation of a parochial education stringer, telling the world we might close. Does this little group of people really wish to share in the responsibility for our demise if it came about? By influencing applications by their speculation, they might be able to say later - I told you so. I get the feeling that because we are the newest, and some folks would like to see a university close for its own sake, we are the whipping boys of higher education. This has quite spoilt my Sunday.

Monday

Spring is coming to Ulster. I walked through the Wilson Memorial Daffodil Garden, Ulster is famous for daffodils and we grow many varieties on the campus, and contemplated the changes in our grounds since I arrived in 1970. They would serve as an excellent film set for the Battle of the Somme but our small ground staff has performed magnificently with their design and planting programme on what must be the most wind-swept campus in the UK. One compensation for this exposure is the closeness to the sea and the views down the Bann estuary and across to Donegal. Another is the presence of superb golf links. An early start allows me to dispose of the paperwork before the inevitable knock on the door. Most of us are available for discussion with students at any time - an advantage of being small is that few of our students are unknown and few fall by the wayside through lack of our interest. It is a pity that when we have left and request our services as a referee, they do not always inform us of their progress in the intervening years. The latest volume of the *Journal of Ecology* keeps me entertained until lunch. The afternoon is spent with administrative matters and writing begging letters for my impending research leave.

Thursday

The first of two visits to our field station at Traud Point, Lough Neagh. Two of my Coleraine based research students travel with me on the 35 mile trip from the Coleraine campus. The Limnology Laboratory is at the N.W. corner of the lake, the biggest in the British Isles, in a townland called Brumaghall. The BC used to cause us great mirth with their pronunciation of place names like this, they have improved. Try and get your tongue around Ahoghill. Fifteen to twenty of us are associated with the laboratory which has survived a bombing - we were an impediment in the way of a united Ireland - and I hope we have become part of the local community. We have various research interests here, water and sediment chemistry, ecological history of the lake, algae, waterleaves (these are minute plants and fish as well as the mechanics of waves and currents). To look at these problems we need the general approval of the weather and local fishermen. The lake is valuable too, not only for the commercial fishing and amenity value but as a very large source of freshwater.

Friday

Lough Neagh again and, as the weather is clement, I venture on to the water. Our boatman, a local fisherman, is in good spirits and we resolve to find a hot whiskey and bottle of beer for lunch. A regular party of us descend on the local town, three pubs, two shops, a post office and a garage, and are entertained by local happenings retold in the bar. "Is it true the university is closing down?" they ask, and I try to dispel this idea because it is from places such as this we recruit many of our students. Back at the laboratory we finish our work as I am dashing off to Coleraine to make an early start for a weekend away.

Tuesday

St Patrick's Day, a day of obligation and, as the diary drily says "Bank holiday, Ireland". The university is closed and populated only by hardy sandwich eaters who have come in to tidy up an odd experiment or manuscript or to prepare for our open days at the end of the week. This year Tuesday has been my busiest teaching day with morning lectures, and tutorials, and afternoon practicals, followed by an evening lecture, so I have a free day. I am committed to open day on board chairman but find time to look at my own work as well. I return home early to celebrate.

Wednesday

The motorcycle trip into work was wind assisted and I touched 60 mph. Peter Pan is trying to recapture his lost youth and wanted a 1000cc machine but finance and sense dictated one an

Saturday

No swimming with the children today as we wake up in Gortahork in north-west Donegal. The nearest land west is the USA, and I can put my work aside and forget the work of the malleus pirochalis Fleet Street stringer trying to assassinate us in observe the effect, and enjoy one of the few unspoiled places in western Europe. It is only a couple of hours from where I work and they speak gaelic in the local shops.

Tony Andrew

The author is a lecturer in freshwater biology at the New University of Ulster.

Colleges of Further Education

NEWCASTLE UPON TYNE
CITY OF
EDUCATION COMMITTEE
COLLEGE OF ARTS AND
TECHNOLOGY
HEAD OF LIBRARY SERVICES
Applications are invited from suitably qualified persons for the post of Head of Library Services. The successful candidate will be responsible for the development and management of the library service. The post is full time and involves travel. Further particulars and application form may be obtained from the Director of Education, City of Newcastle upon Tyne, 100, Eldon Square, Newcastle upon Tyne, NE1 7RU. Closing date: 15th May 1981. Salary: £11,000 - £12,000 p.a. (1980/81). TIES7

Colleges of Art

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EDUCATION COMMITTEE
PALMOUTH SCHOOL OF ART
Woodlands, Falmouth
(Principal) T. Cross
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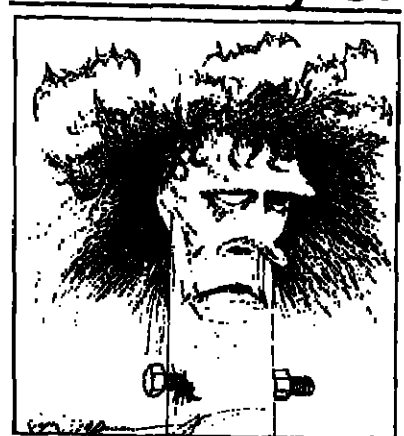
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REMEMBER

FOR ADVERTISEMENTS IN
THE TIMES HIGHER EDUCATION
SUPPLEMENT

Laurie Taylor



"Next, NEXT. Ah you must be Blunstone."

"Yes indeed".
Dr Blunstone, perhaps I should say?

"Thank you".
"Well do take your gown off Blunstone. No need to stand on ceremony here."

"Thank you".
"Now I've been looking through your application form, Blunstone, and also at some of the journal articles and book reviews which you were kind enough to attach to it."

"You are, I understand, interested in a waste disposal position?"

"That's right, yes".
"And I see you've indicated a preference for a two-shovel cart?"

"Yes. With the possibility of promotion to the Passenger Operated Vehicle."

"Quite. Now could you just remind me of your age and previous position?"

"Forty-seven. Senior lecturer".

"Not a reader?"

"No, I'm afraid not".

"Mmm. Pity. We've had one or two senior lecturers before on two-shovel carts but you'll appreciate that these are difficult times and we're obviously interested in getting the very best man for the job."

"Yes indeed".

"Now I wonder if we could turn to these articles of yours. I see that your principal area of interest has been *Arden of Faversham*, although you have written one or two lesser pieces on *Corboud* and *David and Beth-sabe*."

"Quite so".

"Let me come straight to the point, Blunstone. You seem to be claiming as I understand it that *Arden* presents a completely new type of tragedy. I think you term it the 'domestic tragedy'."

"That's so".

"Although I see that you do not acknowledge Edmund Wilson's original use of that term. An oversight, perhaps. But let it pass. Far more important in this context, I believe, is relative failure to discern the genesis of such 'domestic tragedy' in the morality plays. I find it difficult for example to understand how one might validly refer to *Arden of Faversham*'s appearance in 1592 as a new domestic type of tragedy, when we only need to go back to 1530 to discover the non-didactic humanism of John Skelton's *Magnificence*. But let's not split hairs. Have you worked with a broad-tufted broom before Dr Blunstone?"

"Not exactly. But I think I could manage to sort it out quite quickly".

"Mmm. A pity one can't say the same about your recognition of the affinities between *Kyd* and *Skelton*. Now are there any questions you would like to ask us?"

"I was wondering, sir, what happened if one's cart got too full?"

"No problem there, Blunstone. You simply tip the surplus into BPB's - black plastic bags - and leave them at the appropriate corner site for later POV collection. Anything else?"

"No, thank you sir".

"Well, this is no easy decision. As you know there's only one vacancy and quite frankly we've already seen a couple of rather good professors - one with an incisive thesis on *David Dalchies*' misreading of the opening of *Paradise Lost*. Very solid. But I don't want to turn away a man who writes so approvingly of the allegorical dumb shows in *Corboud*. So look here, Blunstone."

"Yes sir?"

"You turn up here on Monday morning, collect your gloves and cart and we'll let you have a trial spin. But no promises mind you!"

LETTERS TO THE EDITOR

Modern undergraduate medical training

Sir, - How depressing it was to read the article by Professor Alwyn Smith (*THE TIMES*, April 3) which indicates so very clearly that a distinguished medical epidemiologist and social scientist is totally out of touch with modern undergraduate medical education.

He says that "it would be impertinent for any individual and particularly for one no longer primarily concerned with teaching medical students to offer solutions to the many problems posed by the unsatisfactory state of medical education and the crisis of relevance through which the medical profession itself is passing".

His criticisms would have been much more relevant and apposite had he taken the trouble to bring himself up to date with programmes of undergraduate medical education as they exist in this country today. I must express grave concern that a major article from an apparently authoritative source has shown that the author is profoundly ignorant about the many developments which have been introduced into

undergraduate medical education in this country in the last 20 years, and that he advances criticisms which might perhaps have been taken seriously 25 years ago, but which are no longer acceptable today.

Obviously, he has not read the 1980 recommendations of the General Medical Council on the teaching of social and behavioural science, upon the development of communication skills, and upon many other facets of medical education which are almost universal in British medical schools today, but which he suggests are being overlooked. Plainly, he has not troubled to study details of the new curricula which have emerged in the last two decades in schools such as Southampton, Nottingham and Newcastle, to quote but a few.

As I write to you today, I am doing so independently to the author, sending him first a copy of the GMC's 1980 recommendations and secondly, a handout which we provide for interested visitors to Newcastle describ-

ing the guiding principles, aims and objectives and content of the new medical curriculum in Newcastle which was introduced in 1976, and which embodies virtually all of the principles which Professor Alwyn Smith commends to his readers as being missing from modern medical education. How one might wish that he had studied such documents before putting pen to paper.

There must be many other deans like myself who will have sighed aloud on reading his article. No one objects to informed criticism and none of us would regard current curricula as being perfect, but long articles such as this which seem authoritative to the non-medical reader, but which are thoroughly misleading and which display such ignorance of current trends and recent developments in medical education are less than helpful.

Yours sincerely,
JOHN WALTON,
Dean of medicine, University of Newcastle upon Tyne

Middlesex Poly spending

Sir, - I agree that Middlesex Polytechnic was in 1979-80 an "above average cost" polytechnic. The reason was both historical - the relatively low SSRs on designation of its constituent colleges and the subsequent reduction in the number of teacher training places; and geographical - the number and dispersion of its sites. However, I was surprised to read (*THE TIMES*, April 10) that in 1979-80 the polytechnic's excess spending set against DES norms was £4.3m. This figure accords neither with my own assessment nor with the life style of the polytechnic.

According to the table reproduced in *THE TIMES* the actual expenditure of Middlesex for 1979-80 was £19.7m, the correct figure if debt charges are included. The figures for some, if not all, of the other polytechnics listed exclude debt charges which is the correct treatment if, as it appears, the DES paper was concerned with the allocation of the capped APE pool. Middlesex's debt charges for 1979-80 amounted to £2.9m which means that its "excess expenditure" was £1.4m and not £4.3m.

Spending at Middlesex has steadily been reduced by more than £1m per annum from the 1979-80 level and it appears that it should no longer be regarded as being a high cost polytechnic. Middlesex will no doubt have to accept its share of the cuts but are unfortunately being disproportionately applied to the polytechnics compared with other sectors of higher education but because of the changes referred to above Middlesex should not be expected to bear heavier financial burden than other public sector institutions.

By any standard these problems are severe enough. As Chilver has already discovered teacher education is still firmly in the grip of sectarianism. Astonishingly and encouragingly the rest of higher education has been almost untouched by this tribalism. A half-exemption was the decision to build Ulster's new university at Coleraine rather than, more logically, in Derry. Although Ulster since its foundation has been a model of fairness between the two communities, any suggestion that it should be cut off from some of its grass-roots and encouraged an introspective style that does not appeal to all students.

Even Queen's has had to pay for its sectarian neutrality with a certain blandness. A natural shying away from really difficult questions, a more gener-

alised caution caused by 12 years of enervating political violence, and the equally natural reluctance of non-Ulster academics and students to apply for posts and places in Northern Ireland, all have made higher education in Ulster less exciting than it might otherwise have been. The events of the recent past, with little hope for immediate improvement, have made it more provincial.

This creeping provincialization, although it can hardly be at the top of Chilver's practical agenda, is perhaps more significant in the long run than the immediate problem of student famine on which so much attention has been concentrated. Indeed the latter is probably simply a first reflection of the former. Nevertheless, although the problems of Ulster have to be seen at all times in this larger context, Chilver has to concentrate on this immediate problem, a potential over-supply of places in the province's two universities and one polytechnic.

It is true that Northern Ireland has more higher education proportionately than any other part of the United Kingdom. It is not that the Northern Ireland Department of Education (which are dully hinted at in university circles) but that it has shared naturally in the development of non-university higher education throughout the United Kingdom.

The real danger is not that there will turn out to be too much higher education in Ulster. It is that it may become too provincial (especially as this would inevitably be a hotly disputed provincial identity). Regarding the dimensions of Northern Irish frame of reference, three institutions may well be one too many. But regarded in a proper multi-dimensional frame - local, Ulster, British (and also and always Irish) - three may not even be enough. The proper conclusion for Chilver is not therefore that Northern Ireland needs less higher education, but that it needs different higher education.

Yet for Chilver, or anyone else, to rush to premature and too simple

conclusions would be a mistake. Ulster is a perfectly respectable new university of the 1960s vintage with areas of real success. It no more deserves to be closed than any of its contemporary universities, which is not at all. Nor is it really likely to be for two important reasons (although the raw and exposed nerves at Coleraine can easily be understood). First, no university is remotely likely to be closed anyway in the United Kingdom, and secondly, Ulster has the important reserve defence of powerful *raison d'être* because to close Coleraine would inevitably appear anti-Ulster and seem to signal Britain's straining patience with the Northern Irish connection.

Nor is it really sensible to imagine that the clock can be turned back to Lockwood and the cuckoo-polytechnic thrown out of the (degree-level) higher education nest. The main reason for the emergence of the polytechnic as a powerful force in the province is not its institutional aggression or the favour of the Northern Ireland Department of Education (which are dully hinted at in university circles) but that it has shared naturally in the development of non-university higher education throughout the United Kingdom.

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Ulster: Lockwood to Chilver

There is a temptation to regard the Chilver inquiry in Northern Ireland as a trial run for the much larger scale rationalization and/or contraction of higher education throughout the United Kingdom which we progressively have been brainwashed into believing is inevitable and even healthy. After all, Northern Ireland, it is said, has too much higher education and cannot justify three large institutions like Queen's, Ulster, and the polytechnic. There is even, in the shape of Ulster, a sacrificial lamb that is always included in the "big-lists" of which universities will have to be closed.

This temptation which the Chilver committee should fiercely resist with regard to Northern Ireland - just as the rest of us should as fiercely resist the parallel temptation with regard to higher education generally. So far as is possible the committee should ignore the static of doom being randomly broadcast from the DES and from any potential Vichyites within higher education, and concentrate on the exceptional problems of Northern Ireland.

By any standard these problems are severe enough. As Chilver has already discovered teacher education is still firmly in the grip of sectarianism. Astonishingly and encouragingly the rest of higher education has been almost untouched by this tribalism. A half-exemption was the decision to build Ulster's new university at Coleraine rather than, more logically, in Derry. Although Ulster since its foundation has been a model of fairness between the two communities, any suggestion that it should be cut off from some of its grass-roots and encouraged an introspective style that does not appeal to all students.

Even Queen's has had to pay for its sectarian neutrality with a certain blandness. A natural shying away from really difficult questions, a more gener-

alised caution caused by 12 years of enervating political violence, and the equally natural reluctance of non-Ulster academics and students to apply for posts and places in Northern Ireland, all have made higher education in Ulster less exciting than it might otherwise have been. The events of the recent past, with little hope for immediate improvement, have made it more provincial.

This creeping provincialization, although it can hardly be at the top of Chilver's practical agenda, is perhaps more significant in the long run than the immediate problem of student famine on which so much attention has been concentrated. Indeed the latter is probably simply a first reflection of the former. Nevertheless, although the problems of Ulster have to be seen at all times in this larger context, Chilver has to concentrate on this immediate problem, a potential over-supply of places in the province's two universities and one polytechnic.

It is true that Northern Ireland has more higher education proportionately than any other part of the United Kingdom. It is not that the Northern Ireland Department of Education (which are dully hinted at in university circles) but that it has shared naturally in the development of non-university higher education throughout the United Kingdom.

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